DOCUMENT RESUME

ED 348 253 SO 020 728

TITLE	The Major Project in the Field of Education in the Latin American and Caribbean Region. OREALC Bulletin 19.
INSTITUTION	United Nations Educational, Scientific, and Cultural Organization, Santiago (Chile). Regional Office for Education in Latin America and the Caribbean.
PUB DATE	89
NOTE	76p.
AVAILABLE FROM	UNESCO Regional Office for Education in Latin America and the Caribbean (OREALC) Enrique Delpiano 2058 (Plaza P. de Valdivia), Casilla 3187, Santiago, Chile.
PUB TYPE	Reports - Descriptive (141)
EDRS PRICE	MF01/PC04 Plus Postage.
DESCRIPTORS	Adult Education; *Developing Nations; *Educational Development; *Educational Policy; Elementary Secondary Education; Foreign Countries; Foreign Culture; International Cooperation; *International Educational Exchange; International Programs; Literacy Education; Science Education
IDENTIFIERS	Caribbean; *Latin America; UNESCO

ABSTRACT

The Major Project in the Field of Education in Latin America and the Caribbean has been undertaken by the governments of the countries of this region to foster educational development and to meet unsatisfied basic educational needs such that the individual efforts of each country may benefit from regional international cooperation. This bulletin, highlights activities concerning the Major Project and development in education in the region. The articles included are: "Third Meeting of the Regional Committee of the Major Project in the Field of Education in Latin America and the Caribbean PROMEDLAC III"; "National Adult Literacy Action in Latin America: A Critical Review" (Rosa Maria Torres); "Educational Financing in Budgetary Austerity Period" (UNESCO. Division of Educational Policies and Planning); "World Conference on Education for All: Accomplishment of the Learning Basic Needs"; and "Patterns in Caribbean Science-related Cultural Beliefs which may Affect Learning in School Science" (June George and Joyce Glasgow). (DB)

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ED348253

bulletin

THE MAJOR PROJECT IN THE FIELD OF EDUCATION

In The Latin American and Caribbean Region

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The Major Project
in the Field of Education in Latin America and the Caribbean
has resulted from a consensus
on the part of government representatives
of the countries of the region
concerning the necessity
for a renewed, intensive and sustained effort
to make good deficiencies and to meet
unsatisfied basic educational needs
between now and the year 2000
as a prerequisite for the development
of the those countries
in line with objectives shared by all
and by means of actions in which
each country's own effort
may be benefited
by horizontal, subregional, regional
and international co-operation.

THE MAJOR PROJECT IN THE FIELD OF EDUCATION
In Latin America and the Caribbean

SUMMARY

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BULLETIN 19

Santiago, Chile, August 1989

In order that this bulletin
may reflect in as complete and timely manner as possible
the initiatives and activities carried out
by each and all the countries of the region
in relation to the Major Project in the Field of
Education in the Latin America and Caribbean Region,
pertinent official bodies are invited
to send to
the Unesco Regional Office for Education in
Latin America and the Caribbean
all information they wish
to have published in this bulletin.

The publication of this bulletin has been made possible by the voluntary contribution of the Spanish Government to the activities of the Major Project in the Field of Education in Latin America and the Caribbean.

The views expressed in the signed articles are those of their authors, and are not necessarily shared by UNESCO.
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PRESENTATION

The third PROMEDLAC meeting was an important milestone in the development of the Major Project, both from a political and a technical point of view.

From the political point of view, the presence of high-level representatives of numerous countries, and the unanimous consensus regarding the priorities of the second Regional Plan approved by the meeting, show that the Major Project is a effective instrument to define national education policies, and that there is a community of thought in the region, which makes cooperation action possible.

Seen from a technical point of view, the meeting showed that the activities of the last decade have made it possible to accumulate experiences and information and to train staff, in a significant number of cases, thereby constituting a solid foundation for future action. It is clear in the approved Recommendations and the Guatemala Declaration that the bonds between technical and political components are strong. PROMEDLAC III here proved the maturity of pedagogical thinking and action in the region.

A report on the PROMEDLAC meeting is presented in this issue of the Bulletin, as well as the Recommendations and the final Declaration.

We also publish a study by Rosa María Torres on national adult literacy action in our region, - an important subject, with the background of the ambitious goal set up for year 2000. The study shows the need for an in-depth and critical examination of what has been done until now.

As a contribution to the debate on how, and in what way, an educational system can function when State resources are scarce, we publish a document prepared by the Unesco Division of Educational Policy and Planning, entitled 'Educatonal Financing in Budgetary Austerity'. It emphasizes that important structural reforms are needed if solutions are to be found to these economic problems.

The World Conference on Education For All is also reported on; it is indeed indispensable to include a majority of mankind in the endeavour to satisfy the basic learning needs of hundreds of thousands more people.

Finally, we publish a study by June George and Joyce Glasgow on the influence on science learning of cultural belief patterns in the schools of English-speaking Caribbean.

As usual, the last section of the Bulletin informs readers of the actitivies of the Regional Office for Education in Latin America and the Caribbean during the last four months.

THIRD MEETING OF THE REGIONAL COMMITTEE OF THE MAJOR PROJECT IN THE FIELD OF EDUCATION IN LATIN AMERICA AND THE CARIBBEAN PROMEDLAC III

In September 1981, the Executive Board of Unesco recommended the creation of an Intergovernmental Committee of the Major Project, the provisional statutes of which were approved by the General Conference in 1983. Since then, this intergovernmental organ has looked after the formulation and implementation of National Action Plans (NAP), establishes priorities and guidelines for the development of the Regional Action Project (RAP) and generally supervises the implementation and functioning of the Major Project in the Field of Education in Latin America and the Caribbean. The Intergovernmental Committee, known as PROMEDLAC(1), has held three meetings up to now: the first in Mexico, in November 1984, the second in Bogota, in March 1987, and the last, PROMEDLAC III, which took place in Guatemala City from 26 to 30 June 1989.

25 countries of the region attended PROMEDLAC III, as well as an important number of organizations of regional and international cooperation and numerous observers from non-governmental organizations. The following countries were represented: Antigua and Barbuda, Aruba, Brazil, Chile, Colombia, Costa Rica, Cuba, the Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Peru, San Cristobal and Nieves, St. Lucia, Trinidad and Tobago, Uruguay and Venezuela. Nine Ministers and seven Vice-Ministers of countries in the region were present.

Work was organized simultaneously in Plenary and in the Working Group. In Plenary, each country presented a report, messages were read from cooperation organizations, and two round tables were organized on relevant subjects. The Working Group discussed the recommendations to emanate from the meeting.

The Minister of Education of Guatemala, Ricardo Gómez Gálvez, was elected President of PROMEDLAC, and the heads of the delegations of Ecuador, Brazil, Grenada, Colombia and Mexico, respectively Alfredo Vera Arrata, Ubirajara Brito, Benet John A. Andrew, Manuel Francisco Becerra Barney and Manuel Bartlett Díaz, were elected Vice-Presidentes. The chief of the Cuban delegation, Hermes Caballero Carrera, was elected Rapporteur, and the head of the Peruvian delegation, Efraín Orbegoso Rodríguez, Chairman of the Working Group. The function of rapporteur of the Working Group was filled by the PROMEDLAC III Secretariat under Unesco responsibility.

(1) PROMEDLAC: Projet majeur dans le domaine de l'éducation en Amérique latine et dans la Région des Caraïbes.

Documents included the main working document entitled "The Major Project in the Field of Education in Latin America and the Caribbean. Progress, Obstacles and Future Action Priorities" (ED-89/PROMEDLAC/3), as well as various reference documents prepared by Unesco.

The solemn opening session on 26 June was presided over by the President of the Republic of Guatemala, Marco Vinicio Cerezo Arévalo. The Director-General of Unesco was represented by the Assistant Director General for Planning and Evaluation, Sylvain Lourié. During the opening session, a message was read by the Minister of Education of Guatemala, Ricardo Gómez Gálvez, and another message from the Secretary General of the United Nations, Javier Pérez de Cuéllar, was read by Adolfo Gurrieri, Director of the Social Development División of ECLAC.

In his opening speech, the President of

Guatemala stressed the dimension of social investment which education represents for his government and the important role of education in the development and strengthening of democracy. He also reaffirmed his conviction and will, to pay the social debt in his country through significant support to the education sector, in the hope that external cooperation organizations would participate actively in this effort.

In a brief synthesis, Orostes Martinez, member of the Cuban delegation, presented and overall assessment of the biennium, in the name of the PROMEDLAC II Committee elected in Bogotá. He underlined, inter alia, the democratic vision and relevance of the objectives of the Major Project, which have made it a model for similar projects in other regions of the world. Referring to the three objectives of the Major Project, he emphasized the efforts made by countries and by Unesco, as well as the obstacles they have had to face. He stressed that quality of education is the key to solving the problem of school failure, which has considerable incidence on the two other objectives. He called attention to the insufficient means at the disposal of literacy action-which may prevent reaching the objective set for year 2000 - and to the need for new management methods which would open the way for innovation and draw on the talent and experience which exist in the region; he appealed to countries to grant due attention to the preparation of International Literacy Year and mentioned the regional projects, which are being launched in accordance with the decisions taken by the Committee, these projects focus to the following topics: Reading-writing and mathematics teaching in the first years of primary school, post-literacy linked to work, improvement of sciences teaching at basic school. Finally, with the crisis the region is going through, he reiterated the need to follow up the political decision to strengthen the Major Project and to seek national and international support; he concluded expressing gratitude towards Unesco for its cooperation in this joint task of the peoples and governments of the region.

Consensus was reached during the meeting, both in assessing problems and in recognizing the efforts made by countries to overcome the most difficult obstacles. This climate was considered particularly beneficial by the representative of the Director General of Unesco, Sylvain Lourié, who, in the closing session, emphasized that the Major Project constitutes a privileged context for exchange of experiences and common search for solutions in education, in an open, frank and sincere dialogue.

The economic crisis which strikes the region was present in the deliberations. The crisis, its political and social consequences, were frequently mentioned in the speeches made by representatives of member states, some of which admitted that a certain regression observed can be explained by the crisis and the burden of external debt, which affects governments' social action. Nevertheless, there was a general note of optimism in the meeting, since progress is made, in spite of all, and the existing pressure has given rise to new and creative solutions and, as Sylvain Lourié also stated, the Major Project has promoted the participation of new agents in educational action, stretching it beyond the borders of a sectoral activity to become a social process.

A general convergence was also noted in the priorities, which countries give to the different categories of activities within the Major Project, in spite of the particular conditions in each country. Increasing management efficiency was considered very important, and so were the processes of administrative decentralization and flexibility, among other matters. Several countries are extremely concerned about school retention.

The priorities set up for literacy confirmed the will to overcome illiteracy, inter alia through research, training and development of complementary activities, many of them linked with International Literacy Year in 1990. Functional illiteracy is a main concern in the region, and so is the improvement of the linking of education and work. Vocational training for women was set up as a priority by several countries, and post-literacy action for young people and adults is seen to be a very important task. The celebration of International Literacy Year was stressed as a general matter of importance for Ministries of Education and for the numerous non-governmental organizations who are to participate in it.

There was a notable agreement on the problem of quality of education, which most countries saw as a fundamental priority, and its importance in reaching other objectives of the Major Project was often repeated.

Opinions concurred in regard to the importance of quality of education to obtain an efficient and effective educational system, stripping that concept of whatever elitist connotations it may have.

The introduction of two round tables in the work programme (2) was an important innovation in PROMEDLAC meetings; over and above the exchange of information and

2 "Illiteracy and Literacy Action in Latin America and the Caribbean" and "What Educational Management for Today's Crisis?".

opinions, among high-level spokesmen, on the state of education in each country, this opportunity for academic reflexion was much appreciated by participants.

The plenary sessions on 30 June approved by acclamation, both the Recommendations elaborated by the Working Group and the draft final report. The delegations produced a document of consensus on the Major Project, called the "Guatemala Declaration".

These documents highlight some of the characteristics, which make this particular moment in the region's history so special. The homogeneous criteria around the Major Project and the smooth exchange of communication which it allows, were more particularly noted.

This takes on significance in the present circumstances in the region, where Unesco appears as the possible vital link in the specific field of education, with the efforts of other cooperation and exchange organizations appearing to decrease.

Both in the Guatemala Declaration and in the Recommendations, the attitude is mature and pragmatic, marked by the responsibility felt by governments towards education, in their countries and in the region, and education problems can only be solved through concerted action and cooperation from all.

Setting up the links, providing the practical groundwork and the technical elements for that cooperation, over the last decade, are what member countries have found in Unesco's regional action to coordinate the execution of the Major Project.

RECOMMENDATIONS ADOPTED

Recommendation on the Second Regional Plan of Action for the Major Project in the Field of Education in Latin America and the Caribbean

The Intergovernmental Regional Committee,

Bearing in mind that this year brings to an end the period covered by the general principles, structure and components of the First Regional Plan of Action for the Major Project in the Field of Education in Latin America and the Caribbean, adopted at the first session of the Intergovernmental Regional Committee for the Major Project held in Mexico City from 5 to 9 November 1984,

Considering that one of the most important functions assigned to the Intergovernmental Regional Committee is to draw up the Regional Plan of Action for the Major Project in the Field of Education in Latin America and the Caribbean,

Considering that the implementation of the first phase of the Regional Plan has enabled significant advances to be made in setting up the fundamental machinery for the implementation of the Major Project, and that it is necessary to ensure the Project's continuity and linkage with Unesco's programmes, with the programmes of other co-operation agencies and with national programmes and operations,

Bearing in mind that the grave socio-economic circumstances affecting the region, outstanding features of which are the foreign debt, an unequal system of trade and the countries' general impoverishment, which may cause the objectives and goals of the Major Project up to the year 2000 to be irreversibly jeopardized, make it necessary to redouble efforts to achieve solidarity and co-operation with the countries of the region and among them,

Having examined the content of recent statements issued by regional and subregional meetings, such as the Acapulco Agreement and the Uruguay Declaration, and by the meetings of the Permanent Mechanism for Consultation and Political Consensus of the Group of Eight, whose action is directed towards political consensus-building, Latin American security based on peace, democracy, development and regional integration, and the Document on Peace and Democracy in the Isthmus: Procedure to establish a Final and Lasting Peace in Central America, also known as Esquipulas II, the main features of which were worked out at a number of technical meetings dealing with specific themes,

Aware of the crucial importance of the action to be carried out in the course of the next six-year period to achieve the objectives of the Major Project set for the year 2000, the opportunity afforded by the proclamation of 1990 as International Literacy Year to mobilize resources and renew strategies in the struggle against illiteracy, and the appeal launched by Unesco, UNICEF, UNDP and the World Bank for the convening of a World Conference on Education for All by the year 2000,

Adopts the following general principles, structure and components of the Regional Plan of Action for the Major Project in the Field of Education in Latin America and the Caribbean, whose second phase of execution will cover the period 1990-1995 (Second Regional Plan of Action).

General observations on the first regional plan of action and proposals for the second regional plan of action

Experience gathered during the implementation of the first phase of the Regional

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Plan of Action for the Major Project highlights certain features and findings that should be borne in mind in the implementation of the second phase of the Plan.

- The Committee is aware that the economic crisis in the region has made it necessary to concentrate a large proportion of resources and energy on solving *contingent* problems. Emergencies in the economic and social spheres, aggravated in some cases by unprecedented natural disasters, have forced postponement of reflection and decisions on medium– and long-term programmes. This trend, at a time of rapid scientific and technological change, has serious implications. The persons now entering the education system will be the workers, technicians, craftworkers, professionals, teachers and citizens of the twenty-first century. While the importance of present circumstances must, of course, be recognized, it seems necessary to emphasize *the equal urgency of reflection and decision-making for the medium and long term*. The action taken under the Major Project in the Field of Education in Latin American and the Caribbean must link up plans and operations intended to relieve emergencies with equally urgent activities and decisions geared to meeting medium– and long-term requirements.
- The implementation of the first phase of the Regional Plan has revealed the complexity and structural character of educational problems and the impossibility of solving them by adopting sectoral strategies in isolation. Especially as regards the situation of the target populations defined as priority groups under the Major Project (sectors in situations of extreme poverty, urban fringe groups, the rural population, the indigenous populations, etc.), the educational shortcomings tie in with similar inadequacies in employment conditions, nutrition, health and housing. In this context, much action taken in the past has fallen short of success precisely because its approach has been too narrow. In a crisis situation like the present, it is necessary to take full account of the fact that the effect of education campaigns is neutralized, in many cases, by the decline in the population's material living standards, which prevent families –especially low-income families– from keeping their children at school and making full use of the educational facilities available.
- The implementation of the First Regional Plan also confirmed that the objectives of the Major Project are objectives of national cohesion within the framework of social policies that acknowledge the existence of different cultural identities and are conducive to regional and subregional integration. In other words, they are objectives that should promote the consensus of the entire society in each of the countries of the region and in the whole region.
- In the present context of crisis, the importance of working out development strategies based on criteria of *justice* has become apparent. Recent experience, at the regional as well as at the international level, has brought out the importance of the human factor in development strategies, this importance being apparent in several areas. In the first place, in *development objectives*. From this angle, it is recognized that social development makes sense only if the problems of the population can be solved and people's living conditions improved. Secondly, it is recognized that many strategies have failed as a result of disregarding the *cultural dimension of development*, that is, the relevance of the proposals contained in the strategy to the values, norms and distinctive characteristics of the population that is to be the protagonist of the strategy. Thirdly, there is awareness that, in future, *information, knowledge and intelligence* will play an increasingly decisive role in the social and productive activities that generate development.
- The economic situation and the socio-political development of the countries in the region have changed the nature of international co-operation. Without a doubt, the challenges set up by the Major Project entail commitments that must be honoured with priority by countries where international co-operation can play only a supporting role. It is necessary to point out, however, that in a context of crisis and uncertainty such as the present, national resources are scarce and must often be assigned to crucial items such as teachers' salaries, to give but one example. In these circumstances, international financial co-operation should be channelled into supporting national initiatives governed by clear principles of autonomy and pursuing objectives of self-sustaining development. In certain cases, such co-operation may play a useful, and indeed a significant, role in certain key activities, especially those linked to educational quality (teacher training, diversified methods, quality control, research, encouragement of innovations, equipment, etc.).

From this point of view, it seems necessary to point out that the Second Regional Plan of Action for the Major Project should give priority to activities designed to step up international co-operation focusing on the objectives of the Major Project and strengthening arrangements for horizontal co-operation, by co-ordinating efforts in this field among agencies, and between them and national authorities.

Goals of the second regional plan of action

– In view of the foregoing, the Second Regional Plan of Action maintains the goals of the First Plan, i.e. to promote and ensure:

  - full use of the potential of national, regional and subregional institutions, groups and programmes, of international programmes, institutions and bodies and of existing networks so as to attain the objectives of the Major Project;
  - the stepping up and organization on a regular basis of information exchange on educational innovations, teacher training, management and human and technical resources, which will promote knowledge about different national experiencies linked to the Major Project, and on the collective procedures used in analysing these experiences in order to help devise strategies to strengthen, disseminate and adapt them, taking into consideration the special characteristics of any given situation;
  - the production, gathering and circulation of information that will enable Member States and the Committee to take appropriate decisions in devising strategies and means of action suited to changing circumstances;
  - the rational and co-ordinated use of the resources and work of various technical and financial co-operation agencies –governmental or otherwise– operating in the region in areas connected with the development of education, as part of the national plans, programmes and projects under the Major Project;
  - promotion and strengthening of specialized national education networks, connected to subregional and regional networks such as CARNEID and REDUC, seeking to interlink the subregional and regional levels.

– For the period from 1990 to 1995, the following goals are also proposed:

  - concentrate on actions aimed at enhancing the quality of literacy and basic education programmes, taking the socio-cultural nature of such programmes as a point of reference;
  - identify and obtain further material and financial resources for the attainment of the objectives of the Major Project, both nationally and regionally;
  - take advantage of the events organized to celebrate International Literacy Year, so as to strengthen literacy programmes during the period of implementation of the Second Regional Plan of Action.

Strategic guidelines for the second regional plan of action

– To achieve the goals set out above, a series of activities will be carried out within the framework of the following strategic guidelines:

  - development of integrated activities taking into account the various sectors of social and economic activity, and identification and setting in motion of integrative measures conducive to the balanced qualitative development of the individual and of society;
  - fostering participation by the least privileged sectors of the population, with the assistance of all branches of society, in order to promote agreed educational and other commitments on a national scale as a means of ensuring the continuity of the activities proposed and implemented under the First Regional Plan of Action and those directed towards the attainment of the objectives of the Major Project among the most disadvantaged groups;
  - promotion of endogenous development that will help to solve communities' socio-educational problems and to improve their quality of life, taking as a frame of reference the cultural values, traditional know-how and customs of the different social groups, in order to ensure the relevance of the education provided;
  - adoption of educational management techniques conducive to community participation in planning and decision-making with regard to the broad outlines, content, methods and evalua-

tion criteria of educational programmes;
- initiating and strengthening different patterns of research and educational information systems likely to provide effective guidance for the taking of appropriate policy decisions;
- participation by non-governmental bodies, community organizations and the population as a whole in educational work directed towards the objectives of the Major Project;
- horizontal co-operation, at the regional and subregional levels, among governments and institutions in the countries of the region in their various fields of competence and their various mechanisms and procedures, must continue to be recognized as the most important motivating factor and the central feature of the Regional Plan of Action, in both its design and its application. Technical and financial international co-operation at the regional level must therefore be placed in this context.

– The implementation of the First Regional Plan of Action led to significant progress in the design and preparation of the Co-operation Networks for the Major Project in the Field of Education (REPLAD, REDALF, PICPEMCE and CARNEID) and of SIRI. The strategic guidelines of the Second Regional Plan of Action as they apply to these networks and to SIRI will therefore be directed, *inter alia, towards:*

- consolidating the Regional Networks and increasing the number of countries belonging to them;
- strengthening CARNEID by allocating to it the resources that it needs in order to fulfil its mandate to co-ordinate the objectives of the Major Project in the Caribbean subregion;
- fostering the organization of National Networks in order to ensure that the National Plans of Action have a greater impact;
- refining the planning and evaluation of programmes carried out within the framework of the networks;
- strengthening the links between the Co-operation Networks for the Major Project and between them and SIRI and the other networks, through joint actions on specific broad problems such as repetition, academic failure and dropping out, lack of infrastructure and low-cost teaching materials and shortage of trained teachers.

Priority fields of action under the regional plan of action

– To attain the goals of this Second Regional Plan of Action, taking into account the progress made and obstacles encountered by the countries in their attempts to achieve the objectives of the Major Project, the Intergovernmental Regional Committee has established the following priority fields of action:

Pre- and in-service training and upgrading of key personnel:

Teachers for rural, urban-fringe and bicultural areas; educators of adults and those working in mass education; planners, administrators and supervisors at the local level; researchers and specialists in the use of computer in education.

– To develop this area, it is recommended that steps be taken to:

- enhance the professional and social character of these occupations;
- emphasize in programmes of initial, in-service and further training the connections between theory and practice in educational and community work;
- engage in systematic experimental testing of various educational options, using participative training models and units and other alternatives in the initial and in-service training of the personnel required.

Experimental testing of new pedagogical options in programmes of literacy instruction, basic education for children, basic education for young people and adults and non-formal education.

– To this end, it is recommended that steps be taken to:

- design and test curricula geared to the various target populations;
- deregulate and simplify the structure and development of curricula so as to facilitate the inclusion of activities relevant to the solution of problems concerning the environment, health, prevention of drug addiction, etc.;
- align education programmes with the requirements of training in the preservation and safeguarding of the local, regional and national cultural heritage.

Participative modes of educational planning and management

– To this end, it is recommended that steps be taken to:

- design and test strategies to enlist the

participation of those variously engaged in the educational process in the planning and management of literacy and basic education programmes;
- adopt criteria for the experimental introduction of new patterns of schoolwork organization (school-year duration, timetables, promotion systems, linking of school and community actitivies), administration of institutions (joint management, self-management by schools, community self-management and others) and administration of the education sector (decentralization, deconcentration and municipalization).

School building policies

– Support for school building policies through:

- development and exchange of experiencia in the use, renovation, maintenance and equipping of existing school and non-school buildings for pre-school, school and adult education;
- design of self-build and equipment projects drawing on community participation and using local materials and appropriate technologies.

Information and research systems

– This field of action is intended to strengthen national capabilities and regional efforts to support research and the collection, processing, analysis and dissemination of information which will facilitate understanding, by Member States and also by the Intergovernmental Regional Committee, of problems, achievements and obstacles in the implementation of activities and in future decision-making.
– Accordingly, it is recommended that steps be taken to:

- prepare generally approved, reliable and valid indicators for analysing the situation and development of aspects of education that are linked to the objectives, goals and strategies of the Major Project. Special emphasis will be placed on the preparation of indicators and methodologies for gauging the quality of education;
- continue research and the pooling of experience in methodology and curriculum development and innovations in the management, policies and strategies of school building and the production of materials;
- circulate information on achievements under the Major Project, in the form of quantitative studies (biennial publication of the report on 'The State of Education in Latin America and the Caribbean') and qualitative studies (four-monthly publication of the Major Project Bulletin and other national, subregional and regional studies conducted as part of the Project activities).

Systematic ordering and evaluation of experience in setting up and developing horizontal co-operation networks

– To this end it is recommended that steps be taken to:

- organize regional and subregional workshops and seminars to develop ideas concerning lines of approach to putting experience with networks on a systematic basis;
- promote exchanges of experience and the development of network evaluation models.

Technical and financial co-operation in support of the programmes and activities of the regional plan

– The implementation and the results of this second phase of the Regional Plan of Action will depend essentially on the efforts of all the Member States of the region and on horizontal co-operation among them. However, technical and financial co-operation has a vital role to play in supporting and supplementing the efforts of the region itself. In this connection, the Intergovernmental Regional Committee expresses once again its appreciation of Unesco's constant, growing and effective support, both through its activities to date and through those proposed under the next Medium-Term Plan. It also renews its thanks to the various organizations of the United Nations system that are carrying out activities related to the Major Project objectives (ECLAC, FAO, ILO, PHO, WFP, UNFPA, UNEP, UNDP), commending in particular the work being done by UNICEF to improve the living conditions of children in the most deprived sectors of the region. The Committee also wishes to make special mention of the activities related to the Major Project being carried out in the region by funding agencies such as the World Bank and the Inter-American Development Bank. An important role is also being played by regional and subregional organizations engaged in assistance work, such as OAS, OEI, SECAB, CEEC, CARICOM and CREFAL, by other non-governmental bodies such as CAR-

CAE, ALER and CEALL, and by others. The generous financial assistance of the Government of Spain for regional, subregional and national activities under the Major Project has been of special significance, especially as regards the training of trainers in educational planning and administration and the strengthening of the Regional Information System, as has been the co-operation of the Governments of Italy, Finland, Norway, the Netherlands and Sweden, and of the Arab Gulf Programme for the United Nations Development Organization (AGFUND).

- The Committee calls on subregional, regional and international governmental and non-governmental organizations and the international community as a whole to continue and as far as possible increase their co-operation directed towards the priority areas and the fields of action, programmes and projects of the Regional Plan and the National Plans of Action. It further reminds the governments of the region of the need to ensure that attention is given in their bilateral agreements to co-operative activities related to the objectives of the Major Project.

- The intergovernmental Regional Committee requests Unesco to continue:

  - to play the catalytic role assigned to it by the Member States of the region: to facilitate the mobilization of horizontal co-operation among the countries concerned and subregional, regional and international co-operation in support of national efforts to achieve the objectives of the Major Project;
  - to accord high priority to the Major Project in its educational activities, steering and concentrating activities and making available the necessary funds under the Mobilizing Project proposed in the Draft Medium-Term Plan and the Draft Programme and Budget during the period covered by this Second Regional Plan of Action, in accordance with the priority areas specified in this recommendation with a view to ensuring the continuation of activities under the Major Project;
  - to take steps, particularly on the occasion of the World Conference on Education for All (Bangkok, 1990), to investigate funding sources for the preparation and execution of specific projects for the advancement of the Major Project, to co-ordinate the mobilization of resources and to promote horizontal co-operation with the same end in view.

- The Intergovernmental Regional Committee further requests the Director-General of Unesco to bring the final report and the Second Regional Plan of Action for the Major Project adopted by the representatives of the Member States of the region to the attention of the General Conference of Unesco and of the various international, regional and subregional bodies operating in the region.

Recommendation concerning the National Plans of Action

The Intergovernmental Regional Committee for the Major Project in the Field of Education in Latin America and the Caribbean, at its third session held in Guatemala City from 26 to 30 June 1989.

Noting with satisfaction that the Member States of the region have updated their National Plans of Action or equivalent documents and set targets for the short and medium term in accordance with the recommendation adopted at the second session (Bogotá, 24-28 March 1987).

Taking note of the reports submitted by Member States on efforts made and activities planned for the years ahead in order to progress towards attainment of the educational objectives of the Major Project.

Taking into account the trends, achievements and shortfalls in activities related to each of the objectives of the Major Project reported at the meetings of the Committee and in documents submitted for its consideration.

Recommends to Member States that they bear in mind the following guidelines for the formulation, execution and evaluation of their national plans and programmes:

- The overall strategy of action to be adopted in order to achieve the objectives of the Major Project consists of a comprehensive approach based on actions directed towards the provision of literacy and basic education for young people and adults and steps to provide primary education for all.
- With regard to *literacy instruction for young people and adults*, the present challenge is that of framing and implementing national strategies, based on an assessment of action to date, that provide the framework for a definitive effort to eradicate illiteracy between 1990 and the year 2000. Closer consultation is needed in preparing these strategies so that the resources of society as a whole can be marshalled and co-ordinated around the objective of reducing illiteracy, bearing in mind the specific characteristics of the problem in each country. High priority

should be accorded in this context to agreements between the State and non-governmental organizations engaged in literacy work, and also within the public sector and among the different sectors of society.

- The evaluation of literacy initiatives should be more systematic. For this purpose, diagnostic research should be carried out to determine the magnitude of the problem, and pedagogical and social impact evaluations should be conducted with a view to introducing adjustments to curricula and methodologies, spelling out geographical and demographic priorities with greater precision, systematically introducing and disseminating the most productive experiments nationwide, reinforcing the weaker programmes with staff from the more successful ones and taking more effective decisions regarding the allocation of resources.
- The experience gained during the implementation of the first phase of the National Plans of Action under the Major Project throws into relief certain criteria for action such as the following:

  - some sectors of the population display characteristics calling for priority treatment in the formulation of strategies (a child and adolescent population that has not been incorporated into conventional schooling; adults involved in productive processes whose prospects, of a higher standard of living depend on learning to read and write; mothers for whom literacy instruction is very important in terms of the impact of mother and child health programmes);
  - cultural policy decisions concerning the language or languages to be used as the medium for literacy teaching;
  - decentralization or deconcentration of the management of the plans of action to regional, district and local authorities, vesting them with decision-making powers and providing them with the resources needed to develop, implement and assess their respective literacy programmes with the participation of the different social actors involved;
  - reinforcement of national capacities for programme impact evaluation;
  - implementation of research programmes to back up decision-making on both policies and teaching strategies;
  - strengthening statistical and documentation systems (national illiteracy map).

- Experience gained in the region demonstrates the importance of *post-literacy programmes* in consolidating the results of literacy teaching achieved under overall policies for the promotion of reading and writing and designed to create situations that are more conducive to use of the mother tongue or the national language.
- With regard to *basic education for young people and adults*, action should be directed in National Plans towards matching content, approaches and practical teaching methods to the requirements of the world of work and towards the adoption of measures aimed at taking into account previous experience and studies and prospective integration into the formal education system. It is further recommended that steps be taken to train, award diplomas to and confer professional status on adult educators by designing alternative forms of teacher training for volunteers and introducing innovative training practices to overcome the tendency to use the same curricula and methods as in the education of children.
- *Literacy and adult education for the indigenous population* is an important priority for some countries in the region. Education policies for the indigenous population must be formulated as a matter of urgency. They must be compatible with the principles of bilingualism and interculturalism, provide for the training of indigenous promoters and schoolteachers, and endow indigenous community organizations with more financial resources and greater administrative independence. Literacy instruction can be more meaningful for these groups if it is linked to cultural and productive activities.
- A dual approach to *the provision of primary schooling for all* is recommended: measures designed to expand the coverage of education and measures to improve its quality.
- As regards expansion of *coverage*, the second session of the Intergovernmental Regional Committee drew attention to three key aspects:

  - plans and programmes aimed at a drastic reduction in repetition, dropping out and academic failure;
  - more concentrated efforts gradually to provide eight to ten years of basic education; and
  - stepping up work on pre-school education.

These three aspects retain their validity in the form in which they were raised at the last

session of the Intergovernmental Committee, and in fact certain new elements have arisen that should be noted.

- With regard to *quality*, the Committee recognizes that *repetition, academic failure and dropping out* –especially in the early grades of basic education– are the biggest problem that the Major Project has to address. In recent years, as a result of the economic crisis and the decline in the standard of living of the rural and marginal urban population, academic failure has not decreased and in some cases has even risen. The Committee considers it necessary to stress the urgent need to continue to seek the causes of this problem and devise diversified educational programmes and methods that have the effect of raising the level of responsibility for educational administration among all those concerned with education, i.e. parents, teachers, pupils and the community as a whole. To this end, pedagogically-oriented strategies (availability of textbooks, automatic promotion, detection of and special arrangements for children with learning difficulties, guidance programmes for children in the early years of basic education, special provision for monolingual and bilingual indigenous children, improvement of teacher selection and training, adaptation of curricular aims and content and educational activity schedules to local conditions and requirements, etc.) should be accompanied by complementary health and nutrition strategies and by efforts to achieve a higher level of participation in decisions by those directly involved in educational action.
- The Committee further recognizes that in certain Member States the over-age problem seriously impedes the attainment of the first objective of the Major Project, and deems it necessary to develop school and out-of-school curricula and programmes specially geared to adolescents in the 12-15 age-group. This would also include teacher training.
- In recent years increasing stress has been laid on the importance of *comprehensive provision for children from 0 to 7 or 10 years of age* because of the biological, psychological and social influence that this stage of development can have on the rest of a person's life. The complexity and multifaceted character of this task have given rise to a plethora of disparate policies, strategies and approaches. Ministries or institutes dealing with health and the family have worked within the governmental structure; action has also been taken by the public and especially the private education system and there has been no lack of disinterested initiatives by a variety of groups and/or individuals; lastly there has been an upsurge of community efforts seeking to capture the attention of the State.
- Faced with this complex scenario, the Committee wishes to emphasize –subject, again, to the conditions, situations and characteristics of each country– the importante of certain operational strategies, such as:
  - strengthening the co-ordination of information and communication among different institutions and programmes, internationally, nationally and locally;
  - continuing and stepping up existing endeavours to dovetail the pre-school level more effectively with the primary level of basic education in terms of material facilities, curriculum and back-up services (particularly nutrition and health); there is already a wide range of experience in this regard, and in some countries new forms of curriculum organization and structure are starting to emerge, such as the inclusion of at least one year of pre-school education in the basic cycle or the concept of an 'initial cycle' of the child's school life combining pre-schooling with the early years of basic education;
  - strengthening and boosting pre-school education programmes that involve mothers in particular, so that provision for the child is comprehensive and relations between mother and school are mutually reinforcing.
- Action to overcome the quantity/quality dichotomy in education should be based on recognition of the right to a better education as inalienable for the population as a whole. Literacy and basic education are therefore important inasmuch as they fulfil an outstanding political function in the building and consolidation of democracy in each and every country. The improvement and universal provision of education, with, content and practices that ensure a comprehensive humanist outlook providing for a formative approach in science and technology from a very early age, are vital in the interests of full exercise of the rights and duties of each individual within a democratic society.
- The Committee recognizes the efforts made through new experiences in *curriculum innovation* to achieve education of a high standard. Most of these innovations

have still not achieved widespread application, which is understandable considering that they are at an experimental stage. Nevertheless, there is a clear need to promote innovative actions of broad scope providing for participation by teachers, parents and students, and also to build them into systems and make provision for their appropriate diffusion.

- Although the problems of quality and efficiency are acknowledged to be very complex, there is general agreement on the decisive importance of the quality of instruction, both in terms of teachers' selection, education and training, and in terms of professional performance and working conditions. The Committee therefore reiterates its recommendations to countries at its last session, laying emphasis on the importance of strategies designed to enhance the professional character of teaching through policies of training and further training and on the improvement of the present conditions governing the status of teachers; this implies the adoption of policies to attract talented young people into the profession, to provide currently serving teachers with appropriate technical facilities and specialized libraries and to obtain salary conditions that are a factor in retaining and motivating such teachers. The Committee warns that, should the present deterioration in working conditions continue for several years, its undesirable effects may be difficult to reverse in the future and may have an impact on medium-and long-term strategies and policies of educational development.
- With regard to the general orientation of the *curricula and teaching methods in basic education*, the Committee suggests to Member States that they emphasize formative work among children and young people, taking into account due consideration of topics related to human rights, peace as a fundamental universal value, the strengthening of democracy, respect for the different cultural identities and the urgent need to safeguard natural resources and the environment.
- One aspect that must be examined in depth and strengthened in the near future is that of *educational quality control*. To that end, priority must be given to working out qualitative indicators, to the design of information systems for the systematic collection of basic data, and to research as an input for decision- makers and for the educational centres themselves. This will make possible the timely quantification of the results of programmes and/or projects. To that end, it is recommended that SIRI provide the countries that require it with more frequent and systematic assistance in terms of information, equipment and training.
- As regard the status, needs and priorities of *bilingual basic education*, the Committee commends the work done to consolidate and/or develop it. In this regard, the Committee proposes that a political, legislative and institutional framework be defined to direct and facilitate advances in the planning of the linguistic and cultural programmes for the benefit of the indigenous population, with a view to improving the dovetailing of bilingual basic education with national educational systems ir order to promote their extension beyond the first two or three grades of primary schooling and literacy instruction. That framework should also foster the formation of a trained corps of bilingual teachers to carry it to the classroom. The growing determination on the part of ethnic minorities to salvage and safeguard their cultural values and achieve a degree of self-management and relevance in the curriculum are of outstanding importance in this context.
- The Committee takes note of achievements in the *production of teaching materials and school equipment* that are adapted to the characteristics and need of communities. In view of the general increase in the cost of materials, it is suggested that these efforts be maximized, not only because they meet specific needs but also in the light of their formative and creative potential.
- The *introduction and use of advanced technologies* in basic and adult education imparted in marginal areas is a challenge that cannot be ignored. To this end, it will be necessary to devise strategies for bringing advanced scientific processes and highly complex technologies such as informatics into classrooms and educational administration centres, with priority to those located in deprived areas.
- Lastly, in keeping with the general guidelines contained in this recommendation, the Intergovernmental Regional Committee for the Major Project suggests to Member States that they step up their efforts to bring the objectives, strategies and priorities of their National Plans of Action to the notice of the general public and in particular to the attention of decision-makers, in order to foster steadily growing awareness of the priority accorded to the development of basic and literacy education, especially on behalf of less privileged groups in rural and urban fringe areas.

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THE GUATEMALA CITY DECLARATION

Ten years after the historic Mexico City Declaration, and bearing in mind the message conveyed by the Ministers of Education of Latin America and the Caribbean in the Bogotá Declaration of 1987, the Intergovernmental Regional Committee for the Major Project in the Field of Education in Latin America and the Caribbean, holding its third session in Guatemala City from 26 to 30 June 1989, notes with satisfaction the progress made in the region towards the consolidation of democratic processes, peace and the bonds of regional and subregional integration. It also notes, however, that this progress has occurred against the background of a continuing and, in many cases, worsening economic crisis engendered by the scale of foreign debt and the onerous terms of trade governing international economic relations. The economic crisis in the countries of the region is seriously restricting the educational opportunities open to the people, particularly those living in conditions of poverty and extreme poverty. This phenomenon largely cancels out the effects of the action taken by countries to provide the entire population with education of a high standard.

In this context, the Committee notes that unless the present pace of educational activity is appreciably speeded up, the region's population will not be universally literate or have access to basic education by the year 2000. Inequality between countries and social groups is increasing at such a rate that it is jeopardizing the prospects of building a world in which all individuals and societies are able to develop their potential and resources to the full. This being the case, the Committee feels that it is duty-bound to warn decision-makers and society in general against the grave implications of a decline in education on such a scale at a time when scientific and technological changes are rapidly transforming the structures of social, cultural and working life.

Growth and development are essential for Latin America and the Caribbean; equitable distribution of the fruits of growth and development is no less essential. Development strategies are meaningful only if they help to improve the quality of life of individuals, both materially and in terms of the enhancement of cultural identity, the development of creative potential and participation in the life of society.

The highly uncertain educational options open to large sectors of the population living in situations of extreme poverty call for the formulation, wherever necessary, of emergency education plans whereby special resources can be mobilized for those in need by means of exceptional procedures geared to the gravity of the situations to be tackled. At the same time, the Committee stresses the need to recognize the urgency of reflecting planning and deciding on measures whose impact will be felt in the medium and long term. Much of the future of our countries depends on those decisions.

Educational deficiencies are not an isolated phenomenon occurring independently of other social, political, cultural, environmental and economic factors. As far as illiteracy, dropping out and repetition in the school system are concerned, by far the hardest hit are unemployed, under-employed and low-

income individuals and families living in far from ideal conditions of housing, health and nutrition. Accordingly, the Committee stresses the need to meet educational problems with comprehensive strategies that call for greater co-ordination of the various departments responsible for social and economic policies.

The objectives of the Major Project are fundamental educational goals whose attainment calls for the long-term mobilization of all society's available human and material resources. In the interests of continuity of effort and participation by all branches of society, the Committee feels compelled to appeal for large-scale nationwide educational commitments to be formulated around the objectives of the Major Project, in keeping with each country's distinctive political, economic, social and cultural characteristics.

The Committee's deliberations have clearly shown that both the current situation of financial crisis and the demands generated by the swift pace at which scientific and technological change and democratization of society call for a thorough review of the structures and forms of educational management currently in force. Ineluctable requirements to meet the challenges of the future are: greater effectiveness and efficiency of education systems; broader assumption of responsibility for results and proper co-ordination of central, regional and local government programmes; encouragement of the work of non-governmental organizations, by harnessing their dynamic potential for the attainment of the objectives of the Major Project; promotion of innovation and creativity at all levels of the education system.

The quantitative and qualitative objectives are closely interrelated for all the countries of Latin America and the Caribbean. Basic schooling cannot be extended to the whole of society without substantial changes in the quality of the educational facilities available.

In this regard, the Committee recognizes that whereas more financial resources must be earmarked for education if the proposed objectives are to be attained, this does not in itself suffice. Without substantial changes to the current methods, structures, contents and procedures of education systems and without firm political resolve at regional and national levels, the objectives set will not be attained with the necessary speed or on the desired scale.

In the light of the foregoing, and further to the deliberations at its third session, the Intergovernmental Regional Committee affirms its conviction that the universal provision of basic education, the eradication of illiteracy and the improvement of the quality of education are necessary conditions for the attainment of the objectives of development, peace and democracy established by the international and regional community.

The Committee notes with satisfaction the effects of Unesco and of the agencies for international co-operation and calls on them to strengthen their links with the Major Project in order to ensure that the Regional Plan and the National Plans of Action adopted at this session are implemented.

Guatemala, June, 30th, 1989.

NATIONAL ADULT LITERACY ACTION IN LATIN AMERICA: A CRITICAL REVIEW

Rosa María Torres (*)

Coming to grips with the problem of illiteracy –and assuming the ambitious goal set up for year 2000– requires, inter alia, an in-depth and critical revision of what has been done up to now in the field of literacy in the different Latin American countries.

This paper is a contribution to that objective; it highlights some of the recurrent problems, contradictions and errors observed in the planning and execution of national adult literacy actions in the Latin American context.

We have chosen the campaign method as a reference for the inventory of problems (a method distinctive by its massive and intensive character and by a wide social participation which calls for voluntary literacy work, generally through active collaboration by young students); however, similar problems can in fact be found in literacy programmes (i.e. longer term actions).

Idealism and Voluntarism

Idealism and voluntarism usually accompany literacy programmes and campaigns. Too ambitious objectives and goals often crash with a reality which –both objectively and subjectively– resists the rhythm, quantity and quality expected and hoped for.

While the literacy process stimulates and reveals unimaginable human possibilities, the process at the same time turns out to be slower and more complicated than expected: assembling literacy learners and teachers, training and mobilizing the latter, elaborating, printing and distributing teaching materials, the teaching-learning process itself.

There turns out to be more difficulties than expected in efforts to win over public opinion, to mobilize and maintain willingness in both literacy learners and literacy teachers, to coordinate the efforts of the different state organisms involved, to make non-governmental organisms participate, to conciliate the interests and roles of the different partners, to set up flexible and efficient communication, internally and externally, and to control what is going on all over the country, etc.

The teaching-learning process often uncovers surprises. Real life literacy learners –peasants, poor suburbians, labourers, housewives and workers, in general– are far from fitting into the mold of the ideal literacy student described in wise plans, chronograms and methods: a man or a woman, for example, who crave to learn to read, who are never tired, never ill and never have problems, who attend classes regularly and punctually, who have people to care for their small children, who progress rapidly and homogeneously, who have good hearing and clearly see the tiny letters in the book, etc...(1).

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(1) Serious visual and auditive problems are frequently observed, even among young people. We have all heard, of the campaigns to collect eyeglasses, first in Cuba and then in Nicaragua, as part of their respective literacy campaigns. However, this concern has not often been taken into account in later projects, in which the problem often crops up as an "unforeseen" one. The same can be said about the frequent and inevitable enrolment of children into adult literacy programmes, without prior measures (organizational, pedagogical and others) to tackle this situation adequately.

More often than not, teaching methods and materials are also shaped for ideal human and material conditions: expert and creative literacy teachers, born leaders who are sure of themselves, good at dialogue and competent in almost any topic, staunch readers accustomed to handle manuals and recommendations, systematic in planning their teaching and in drafting their logbook... Moreover, teaching recommendations and manuals often take for granted that pencils, notebooks, blackboard, chalk, tables and chairs, light and silence are available. In this respect, it is clear that the urban origine of most of the planners plays an evident role.

It is this idealistic light which contributes to the illusion of rapid formulas and literacy in record time. Programmes and campaigns typically set up goals such as "eradication" of illiteracy, thereby not only under-estimating the magnitude of such and undertaking, but also disregarding the very structure of illiteracy in our societies. It does therefore not come as a surprise that the goal of eradicating illiteracy is not reached; literacy action has to be an ongoing and long-range effort, beyond the immediate goals of a programme or a campaign(2).

It undeniably takes a high dosis of mystique, idealism and voluntarism to make a national literacy campaign work. Nevertheless, chances are that success is more to be found in a careful balance between healthy idealism and rigorous realism.

Hasty Beginnings

Doubtless linked with this high dosis of idealism and voluntarism comes the haste to get moving. Whether revolutionary or not, a new government in Latin America will come up with a literacy project to be implemented during the first half of its tenure.

Beyond the obvious differences, there are generally two postulates behind such haste: One has to do with the possibility of using literacy for a nation-wide effort, as a tool to reach social justice and for political-ideological work; the other has to do with taking advantage of the impetus of a new government, that is anticipating a possible rapid deterioration of the economic and social situation of the country and, consequently, of government popularity, and therefore its capacity to mobilize for a national task(3).

Whether we speak of campaigns or programmes, time has usually turned out to be insufficient for the number and complexity of tasks involved in undertaking a national literacy campaign, with massive mobilizing of the population. It is obvious that unforeseen factors, errors and improvisations, and not all of a negligible nature, emerge as a result of haste and pressure.

Indeed there are no rigid recipes to fix the best dates and time limits. However, the choice of timing and the right political-ideological context –in objective contradiction with the duration and time schedule needed in a national educational undertaking, such as a literacy campaign– generally weigh more heavily than considerations of pedagogical efficiency.

The Temptation of the "Model"

The legendary success and impact of the literacy campaigns in Cuba (1961) and Nicaragua (1980) have led to a strong tendency in Latin America to use these experiences, either as a model, often idealizing them, or else to reject them for ideological reasons.

Whatever the case –imitation or rejection– there will be distortion of the "model". Many are bent on seeing these campaigns as never-failing undertakings to reach their objectives, thereby denying what is common sense and obvious: there will be contradictions, problems and errors of all kinds which are, as we well know, inherent in any human undertaking.

Neither the Cubans, nor the Nicaraguans can be blamed for this. On the contrary, they are often the first to stress that it is impossible to imitate models, and to draw attention to the need to seek individual and suitable solutions to each concrete situation and context. The problem seems to be found more on the side

(2) Comes to mind, for example, the case of Nicaragua where some 12,96% residual illiteracy still persisted at the end of the 1980 National Literacy Crusade, in spite of the serious and massive effort undertaken. This made it necessary to modify the slogan "illiteracy-free territory" into "Victorious territory over illiteracy".

(3) Literacy campaigns have often been one of the first measures taken by revolutionary governments, not only in Latin America (cf. Cuba, Nicaragua and Grenada), but also in other parts of the world. In the case of the present government of Ecuador, headed by Dr. Rodrigo Borja, the literacy campaign now under way was announced one month after the change of government and was planned to start four months later. There was a lot of questioning in different sectors as to the haste, and lack of planning, and reality itself took care of showing the need to delay the beginning of the campaign some months, beyond any conjuntural considerations.

of the recipients, when lack of critical sense and craving for recipes take the place of a proper analysis of each case.

On the other hand, the importance of knowing these exceptional experiences carried out in revolutionary contexts cannot be denied, but it does not replace the need to study the experiences carried out in non revolutionary contexts which, in fact, abound in the Latin American literacy history.

In any case, any attempt to approximate other experiences, in search for elements to help orienting one's own experience, only makes sense, if search is directed towards specific features. And in this, nothing replaces building systematically and critically upon accumulated national experience.

Often when looking for that specificity, reality may lead to the same answers as the ones Cuba and Nicaragua found. It remains to be seen, however, whether actions of that kind and scope can be undertaken successfully in other contexts.

Indeed, outside the particular context in which these campaigns were carried out, many of the elements, which precisely attracted attention and caused emotion in those who see the key in the "model", turn out to be impossible to reproduce: the wide mobilizing of young people, the mystique and strong commitment which spreads to the entire society, the perspective of a shared objective, etc. On the other hand, non revolutionary contexts offer specific advantages, which should be analyzed and put to use.

The Divorce between the State and Civil Society

It is evident that ensuring education for all and making education as an individual right a reality, thereby solving the problem of illiteracy, is a task which is fundamentally incumbent upon the State. Nevertheless, nothing can be achieved without the active participation of the entire population and of civil society institutions and organizations. And such participation, far from being the case in our countries, appears as very difficult to achieve.

In effect, from the outset, there is generally a profound and historical divorce between the State and civil society, deeply rooted in open distrust, and at times rejection, on the part of one or the other; this makes it difficult to carry out an integrated and joint action when the State takes the initiative to propose a literacy project.

The State, its institutions and civil servants tend to have a hegemonious and even monopolistic vision of its role in adult literacy, leaving aside, and sometimes rejecting, the very existence of that other history and that other experience, accumulated outside the State, among the many nongovernmental organisms and grassroot organizations, who may have antagonist and alternative reactions to government acting. It is therefore hard for State officials (and in particular for Ministry of Education officials) to accept the support, advice or participation of staff from "outside". On the other hand, on the non-governmental side, there is a strong and persisting homogeneous vision of the State, blamed, ahistorically, for all the defents of an antipopular State.

It is not easy in this context of facing and struggle to assemble that extended, national and plural participation that many times characterizes the governmental proposals when a national literacy action is intended to be carried out. To review conceptions and attitudes largely rooted, appear as a need which involves the seriousness and political maturity of both.

Lack of Background Information Before Starting

Despite the long history of literacy action in Latin America and in each country, every new literacy project seems to start in a vacuum.

It is not rare that officials and planners discover, when facing the task of outlining a literacy plan, that there is no experience, nor accumulated technical capacity, no evaluation of results and impact of earlier projects, and no reliable diagnosis of the present situation. Then, with the haste to set things moving, priority is given to action rather than to research, collecting and analysis of information.

Lack of time and information certainly contributes to very bad planning, based on gross figures, general ideas and countless assumptions, which make for more questions. Moreover, statistics, on literacy used officially prove disparate or inconsistent, since they are not based on real life data(4).

The unfortunate tendency which characterizes education in general seems to become exacerbated in the field of adult literacy: the tendency to associate information and re-

(4) Special censuses and surveys carried out just before the beginning of a massive literacy action frequently reveal illiteracy rates which are higher than the official ones. The unreliability of illiteracy figures provided by population censuses has also been noted, both because of inadequate phrasing of questions on illiteracy and because of problems in collecting and treating them.

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search with figures, statistics, percentages, tables. If at all, censuses and surveys provide this quantitative information. But the qualitative aspects, just as important and necessary, if not more, for the success or failure of any educational project, are often disregarded.

What does the country as a whole think of the literacy project?

What is the opinion of the social sectors, from whom active participation is expected? With which arguments will be idea of literacy catch among popular sectors who are absorbed in the battle to survive? What feelings, expectations or frustrations have former literacy actions left in the population? What experience and possible contribution can be found in non-governmental institutions, grassroot organizations and civil society in general?

These and others, and the fundamental questions, and the efficiency of a literacy undertaking depends to a great extent upon the answers thereto, and maybe even more so if this undertaking is not an authoritarian and paternalistic State action, but one of participation, capable of involving the population not only as labor force, but as a thinking force with opinions, to take part in the decisions behind the planning and implementation of the project.

Lack of Qualified Human Resources

Literacy, and in particular adult literacy, tends to be seen as a task which does not require particular studies, or specialization, as a field eminently linked with goodwill and oriented towards action. As a result of this, there are few specialists in this field in Latin America.

The idea that anyone who can read and write can become a literacy teacher is still widespread, just like the idea that any educator is automatically an adult educator. Typically, the school teacher is considered the natural depository of the job of teaching adults to read and write. In our countries, there is a powerful idea of the school teacher as the only possible education agent. Hence, facing the frequent proposal to involve young students, community leaders and volunteers, in general, in literacy tasks, there are reactions not only among primary school teachers, but in the entire society defending "professionalization" as an indispensable, and sufficient, requisite to take up the job.

On top of the false assumption that a good educator is one who has studied to become a teacher, this attitude disregards the specific nature of adult literacy, as compared with child literacy-with all the obsolete concepts and practices which are still part of the latter; this is obviously a result of the insufficient education and lack of further teacher training, which characterize an important part of the teacher force in Latin America, or at least in some countries (5).

The teachers have inherited a long tradition of adult literacy, and with their practical experience and years of service, they have come to be considered the basic "specialists". This gives us a whole generation of specialists closely linked with the history of literacy in each country, old education bastions, among whom we find teachers who have retired, or are about to, many of them linked, in their time, with the golden era of institutions such as CREFAL, but often anchored in a vision which has left out recent developments in the field of adult education.

The value of the practical experience accumulated by many of these literacy agents in each of our countries is not denied, but it is also undeniable that a systematic training effort, and intake of new capacities, are needed. And this makes it necesary for the State to accept cooperation from non-governmental organisms in the form of qualified personnel, but also to devote special efforts and resources to train specialized agents in this field.

It also requires accepting international advisory services and creating conditions for effective and efficient collaboration, in order to do away with the narrow chauvinist barriers, which more often than not follow the motto that 'the shortest way is the known way'. For the organisms which provide such international advisory services, it implies a careful selection of experts and a change of the bureaucracy and formality which, at times, weigh more than criteria of quality and technical efficiency.

A national literacy action is gigantic undertaking with two central dimensions: one is organization and the other teaching; one cannot function smoothly without the other. Succeeding here requires not only enthousiasm and work, but also science and technique. Improvization turns out to be costly, not only in the technical pedagogical field, but also in organization.

A national literacy undertaking is a chal-

(5) We still know little about the specific differences -pedagogical, in particular- between child literacy and adult literacy. But important studies undertaken with children show the need for a deep-going change in the teaching children to read and write. And the school teacher, when having to teach adults, mechanically transfers not only schoolroom teaching habits, but also the kind of teacher-child relationship, to which he is accustomed.

lenge to creativity and calls for daring, doing away with preconceived patterns. Seen in this perspective, it requires training and further training, self-education and re-education of the literacy teachers and of the management and coordination staff.

A Perpetuated and Standardized "Innovative" Discourse

The education field in general is often inert and lags behind; this is even more true for adult education and therefore for literacy.

After a period of important renovations and upheavals, which lasted up to the end of the sixties and beginning of the seventies, adult literacy doubtless started to stagnate, going round in circles and repeating itself, both in its reasoning and its practices; it fed little on theory, research, systematization and evaluation.

The fertile ideas and movements articulated mainly around the thinking of Paulo Freire in the sixties, which breathed new dynamics into Latin American education, have been repeated again and again in both rusty, but also impoverished versions, which take no account of Freire's own evolution and the theoretical and practical progress in the field of literacy over the last years (6).

The discourse has been repeated and standardized with no concern for particular cases, nor for the changes brought about by the socio-economic and political context in Latin America, nor the practical experience accumulated. Time and time again over the last years have we seen objectives and educational strategies and concepts presented as "innovative", which often only repeat, at most with new words, old postulates of those, who in effect did innovate two decades ago.

There is in effect a common phraseology in adult literacy programmes and campaigns in Latin America. Expressions such as "banking education, liberating education (7), domesticating education, dialogue, action-reflexion-action, generating word, generating topics, critical reflexion, problem analysis", etc, are unfailingly used in plans which, in fact, reject banking methods, authoritarism, verticality and lack of critical sense, advocating a mutual learning process between teachers and learners through participation, growing awareness, critical reflexion, horizontality. The gap between such statements, with their lack of conceptual and theoretical depth, and practice, remains enormous (8).

All this serves to reveal the clear and urgent need for research and theoretical development in this field, as well as the need for integral, systematic and extensive training of the people who are in charge of literacy, leaving aside the easy pattern of instrumental training in methods and techniques, and aiming at a theoretical-practical approach which encompasses all the different aspects (social, pedagogical, epistemological, etc.), which make up an educational undertaking.

Technical-Pedagogical versus Political-Ideological Considerations

Even since the word "literacy" became associated with the word "awareness", did literacy start to be seen in Latin America as a privileged tool for political-ideological work. And little by little, concern for teaching yielded to concern for how to develop that 'awareness'.

That literacy is not just learning to read and write is obvious, and literacy action should not be confined to the instrumental aspects of reading-writing but play a definite social role as part of a political-ideological objective.

Even when this double integrated dimension of literacy (and of any educational project) is recognized, it is generally not easy to solve the complex tension between technical-pedagogical and political-ideological considerations, with more emphasis being put on the ones or the others. When priority is given to teaching comprehensive reading-writing, the more directly social dimension of the literacy process is often minimized. On the other hand, if the social dimension is stressed, it often means sacrificing the learning component in the process of acquiring reading-writing skills (9).

(6) In this respect, reference is made to: R.M. Torres, Educación popular: un encuentro con Paulo Freire, CECCA/CEDECO, Quito, 1986; Edicoes Loyola, Sao Paulo, 1987; TAREA, Lima, 1988; Centro Editor de América Latina, Buenos Aires, 1988.

(7) Note of the editor: "banking" education=education becomes an act of depositing, in which the students are the depositories and the teacher is the depositor (Pag. 58). "liberating education": consists in acts of cognition, not transferrals of information (Pag. 67). From: "Pedagogy of the oppressed" by Paulo Freire. The Continuum Publishing Corporation, New York, 1982.

(8) For an analysis of this, see: R.M. Torres, Discurso y Práctica en educación popular, Textos Nº 9, CIUDAD, Quito, 1988; UNIJUI Livraria Editora, 1 July, 1988.

(9) There are abundant examples of this. Politicians, teachers, journalists, etc., who ignore the technical requirements involved in elaboration of teaching materials for literacy, often consider themselves competent to demand or propose given themes or words. In the case of the 'Monseñor Leonidas Proaño' National Literacy Campaign, now going on in Ecuador, there are

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At the same time, the (false) idea that the political-ideological orientation of literacy is to be found in the textbook and its explicit contents (and not in the educational relationship itself) leads to increasing attention paid to the teaching materials, with a vigilant control over selection of words and topics, thereby cramming too dense contents into textbooks and training workshops for literacy personnel.

Here, a literacy project with participation from varied sectors, institutions and social organizations finds itself in the midst of a struggle for the control and political-ideological orientation of the project –a struggle which is centered around defining "the contents" (10).

How to settle this problem in a democratic way, while taking into account the interests of the popular sectors, and not give in to the temptation of making the literacy project a propaganda tool for the government, or the ruling party, is indeed a challenge to test the government's political capacity.

The Negative Perception of Illiteracy and of the Illiterate

In the field of adult literacy, a very stigmatizing discourse is traditionally applied, both to illiteracy and to the illiterate person himself.

A common, and easily recognizable terminology has become generalized, and even transnationalized, using such expressions about illiteracy as social scar, scourge, calamity, plague, and even vice. All terms are applicable to illnesses and pathologies, and it is not surprising, therefore, that the expression 'eradication' of illiteracy is used.

The word illiterate itself defines a person with something missing (the letter) and is associated both with ignorance and with such expressions and analogies as 'blind', 'cultural prisoner', etc., which evoke the image of an invalid or handicapped person, and not one of a normal person, whose particularity is simply that he does not know how to read or write (11).

(9) (Cont.)
examples of accusations that textbooks are "macho" because the word WOMAN only appears in Unit 9 in Nicaragua. Commander Tomás Borge, speaking in public, promised that the first author which the Nicaraguan people would learn to read would be Carlos Fonseca; he did not stop to ask if such reading would be adequate, or not, for literacy purposes. Those who elaborated the textbook 'The People's Dawn" had to keep the promise.

(10) That is how, for example, in the case of the "Monseñor Leonidas Proaño" Campaign, right and left have tried to decipher the "true" political-ideological intentions of the campaign, through an analysis of the literacy textbook, which is centered on human rights. It is indeed curious how the same words and texts lead some to conclude that the literacy campaign is 'communist-oriented', while others denounce it as domesticating, reformist and acritical.
For example, with regard to a text included in the textbook concerning the right to private property, the right said that it foments ill feelings between classes, as well as subversion, while sectors of the radical left denounced it as inducing the reader to respect private property.
"Angel takes the bus. He carries a machete and a food basket. He is on his way back to the village. His family is expecting him to harvest, in his own piece of land. Afterwards, he will give a hand in the communal lands.
Angel left the sugar factory this morning, where he cuts cane every year. He is happy. He has saved some Sucres to finish paying the deeds of his land.
Angel is thinking: How expensive it is to own something; then he starts thinking: everything has an owner. The machete and the piece of land are his. The communal lands belong to the cooperative. Angel does not know the owner of the sugar factory. Does the driver own the bus? And the roads, do they also have an owner?"
Moreover, in regard to Unit 5 concerning the right to freedom of speech, the initial text of which says "Your opinion is worthwhile. If you don't give it, you renounce a right", leftist sec-

(10) (Cont.)
tors protest that it is "an idealistic statement which does not lead to any discussion on censureship, repression against journalists, monopolization and privatization of the press, television and radio", they add that "the literacy student has to content himself with descriptions which do not denounce anything and, worse, do not mention or analyze the structural causes for the existing injustice and poverty surrounding him, nor the collective attempts to change things which the people has, and is still undertaking, to free itself. The famous "problem analysis" of reality to understand it, and change it, is absent". (In "Alfabetización, democratización social y desmovilización popular", Cuaderno Testimonio Nº 5, CDDH, Quito, May, 1989).

(11) Below are excerpts from an article entitled "The Tragedy of the Illiterate" (Magazine Vistazo, Guayaquil, January, 1989), which we consider eminently representative of the grotesque views and terminology often used about the illiterate: "Victim of his ineptitude, that is of his ignorance, in the midst of the complexities of modern times, he suffers relentlessly the humiliation of an evident communication invalidity... The unfortunate illiterate daily stumbles over the difficulties springing from his spiritual semi-darkness, but he must also accept that he can only know and enjoy his rights partly. It has to be clear that I am referring to a concrete kind of illiteracy, which any of us can observe in our midst: the

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This is not only a terminological problem. The phraseology discloses a clear lack of understanding of the problem, increased by discriminating notions of illiteracy and the illiterate, even among people who reject elitist and discriminatory attitudes and speak up for respect and valorization of popular cultures, oral traditions, etc. Hence, a democratic and freedom-oriented outlook is often not translated into the concrete pedagogical practice, which is still full of the otherwise unspoken prejudices.

An in-depth change of the traditional terminology associated with illiteracy implies a deep-going change of the widespread concepts and attitudes in order to affranchise the illiterate condition, at last.

No illiterate feels interpellated as such. Illiteracy is not a disgrace to be eradicated, but a complicated social phenomenon to be understood and tackled. The illiterate person is not ignorant, as one often hears. The literacy teacher is not a carrier of civilization or culture, nor a torch carrier. To fully understand that, we have to reach better understanding not only of the illiteracy problem, but also of the social, cultural, linguistic and purely educational aspects involved in the appropriation of the written language.

Lack of Historicity in Literacy Actions

Latin America societies have been through profound changes in the last twenty years. New active forces and social movements have emerged. The word "development" has yielded to the words "crisis", "external debt", etc. Mass communication media have invaded territory throught out of reach before. Technology has undergone considerable progress. And so has knowledge. However, all this has apparently not filtered into the analysis and comprehension of the adult education process, and new times and new conditions have not caused a new thinking of key questions, such as: What is literacy? Why make literate? And how?

Today, to some extent, the reasoning behind adult literacy and its practice still repeat twenty-year old patterns. To which extent is it still right to link literacy action and development, literacy action and work, literacy and better quality of life? To which degree have the needs and motivations of literacy action changed in the context of acute economic crisis and the struggle to survive, and facing the assaults of audiovisual means as powerful and extensive as television?

All these themes –abundantly analyzed by Latin American social sciences– have left aside the field of literacy. There is obviously a link missing and feedback missing –between scientists and educators, between social and human sciences and education as a field for analysis and research.

Updating knowledge on literacy in a multiple and interdisciplinary perspective, and facing the questions and new challenges of the Latin American and national reality, become a necessity which can no longer be delayed, and a task which calls for an integrated effort of the sciences.

Lack of Continuity in Action

Lack of continuity in action is a chronical problem of adult literacy, whether at governmental or nong-governmental level, in revolutionary contexts or not.

When we speak of "continuity", we are referring to two questions: on the one hand the need for literacy to be a permanent and systematic task and, on the other, the need to provide/continuity in further education of the new literates.

As we have said before, no single campaign or definite programme has solved, or can solve, illiteracy once and for all; at least not in countries like ours where illiteracy takes on massive proportions. The problem of illiteracy can only be tackled through a regular and systematic effort, which does not end, when a campaign does, or when a government tenure does. 1990, International Literacy Year, is therefore meant to be the first year of an entire decade of world efforts to try to reach the goal of year 2000 without illiteracy.

It is indispensable to make literacy a strategy and an ongoing task; but it is not less important, right from the planning stage, to ensure the necessary reinforcement and continuity required among the new literates to make literacy a truly useful and socially productive tool.

Even in the case of campaigns carried out in revolutionary contexts, the social energy centered in the preparation of literacy campaigns, and subsequently in execution thereof, has often prevented a longer term strategic vision –hence the difficulty of implementing an

(11) (Cont.)
kind to be found among the poorest of the poor in the country. That is, among the humble workers, the unemployed, the beggars and the miserable inhabitants of the shack towns of our cities...
This multitude of dispossessed people, added to the thousands of primitive people, who live in the villages of the sierra, the coast and the Oriente, make up the majority of the many Ecuadorians who suffer under an absolute educational pauperization..."

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immediate and massive flow towards post-literacy, or a regular adult education programme (12).

In fact, Latin America, and the Third World in general, not only produces "pure" illiterates, but also armies of "regressive" and "functional" illiterates, as a result of insufficient and incomplete literacy, and even schooling, efforts, and aggravated by lack of continuity and practical use of reading-writing skills. What is the use of investing so much money and social energy in campaigns which hardly attain elementary literacy levels, if there is no guarantee of continuity and further learning possibilities?

The States indeed have to see beyond short-term, electoralist and political calculations and propose educational projects which last longer than the formal period of government tenure. If the problem of illiteracy is to be taken up seriously, it is indispensable to go beyond the classical vicious circle of "Let's erase and start all over", with which each new government tackles literacy campaigns and programmes.

(12) For an analysis of this in the case of Nicaragua, refer to: "De alfabetizando a maestro popular. la post-alfabetización en Nicaragua", in: R.M. Torres "Nicaragua: revolución popular, educación popular", CRIES, Editorial Línea, Mexico, 1985

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EDUCATIONAL FINANCING IN BUDGETARY AUSTERITY PERIOD

UNESCO. Division of Educational Policies and Planning

The following study was prepared as a basic document for the Technical Consultation on Mobilizing of Resources for Education, held in Buenos Aires in November 1988.

An attempt is made in the study to identify the problems and contours of education today in developing countries, given the severe economic restrictions affecting them. The magnitude of the financing problem is analyzed in the context of international economic crisis and adjustment policies, and their consequences are identified.

The document proposes solutions which are already applied in some countries and others, which are under study, concerning the choice of political objectives and development model; it also explores the possibilities of mobilizing financial resources, both nationally and internationally.

The document is meant as a contribution to the debate around the fundamental question: How, and in what way, can the education sector function and develop, when State resources become scarce?

It is emphasized that, for a majority of developing countries, it is not enough to improve education management techniques, or introduce pedagogical innovations, but that the solution of financing problems is to be found in deep-going structural reforms.

In preparing this study, the Unesco Secretariat used a document written in March 1988 by William Experton for the Division of Educational Policy and Planning, Education Sector, the aim of which was to sum up existing texts on the subject. However, the study also draws on the ample and solid experience of the Secretariat and on the up-to-date information it receives from respective national services.

This document is the first of a series of articles on the subject of educational financing.

The Dimensions of the Problem

Until the beginning of the eighties, the problem of financing education was seen as one of development and of social needs to be satisfied. For educational specialists, the key question was to be able to fix the budgetary provisions needed to reach the objectives set for education. Education development plans, the planning process, statistics and management of the educational system were all oriented towards this question. Finding the resources needed to finance the objectives, although difficult, was not perceived as a major or impossible problem in most countries. It was thus thought for a long time that one could reduce development disparity and reach full, and good quality, schooling for the entire school-age population. The huge efforts already made, with often spectacular results, seemed to indicate that the approaches chosen for education development were right.

Today, nothing seems so sure. The situation has changed considerably. Education budgets stagnate or decrease (in terms of purchasing capacity). Financial constraints are such for an increasing number of countries, that it becomes more and more difficult to maintain the qualitative and even quantitative levels reached. The situation could be summed up in the following question: How many pupils and students can be enrolled in schools and faculties, and with which degree of educational quality, with an extremely lim-

PRIMARY SCHOOL ENROLMENT RATES IN YEAR 2000, ESTIMATED ON THE BASIS OF AN ANNUAL GROWTH OF 7% OF PUBLIC EXPENDITURE ON EDUCATION

	Gross Rates*	Net Rates
North Africa	96%	85%
Sub-Saharan Africa	90%	65%
Latin America and the Caribbean	109%	85%
Asia	93%	80%
Oceania	90%	70%

(*) The difference between gross and net rates (which measure the proportion of an age class which attends school) is situated between 10 and 25 points.

Source: Estimate by J.C. Eicher, "L'évolution des systèmes d'enseignement dans le monde de 1960 à nos jours", Unesco, 1985.

ited budget? Austerity took most education officials by suprise. They found themselves unprepared to face problems which were new to them.

The gap in public per capita spending on education between industrialized and developing countries, although tending to diminish in the period 1960-1980, remains considerable (in 1983, US$ 465 per capita in industrialized countries, as against US$ 27 in developing countries: i.e. a ratio of 1 to 17). The difference in per pupil expenditure in primary education between OECD countries increased to reach a ratio of 1 to 50. It is obvious that the financing problems in developing countries have reached proportions unknown to developed countries; experience seems to show that the solutions generally applied in developed countries, such as improving efficiency, controlling costs and diversifying funding sources, are not applicable to the situation in which many developing countries find themselves.

The financing question seen as a way of meeting socio-educational needs is hindered by demographic pressure and the size of school-age population which exceed the financial capacity of developing countries. During the 1960-1975 period –considered exceptional as regards the progression of budgets devoted to education (9% in average)– the number of pupils in developing countries was multiplied by 2,25. However, despite the exceptional budget growth, the yearly growth of the school population had already started to decline: 1960-1965: 7,2%; 1965-1970: 5%; 1970-1975: 4,5%. If future annual growth of public spending on education were around 7% (figures from 1980-1982), in year 2000 we would still be far from full primary school enrolment. Today, the annual growth of spending on education is hardly more than 4% in most countries.

Unless the growth of their education budgets again reaches high and constant rates, developing countries will find themselves in an inextricable situation as regards financing: on the one hand, they are faced with a very strong demand for education at the secondary and higher levels; on the other, they are still far from having reached their objective of universal elementary school enrolment, a goal which States have committed themselves to reach. They must therefore make choices which will make it necessary to postpone or sacrifice some collective needs. They will no longer be able to avoid important changes of structures and of the functioning of the education sector and the goals of the different sub-sectors. It is in the interest of governments that the unavoidable political and social decisions are taken in an orderly and conscious manner.

In the search for solutions to the problems of education arising from austerity, financing of education must be seen in the context of national economy, of which the education sector is an essential part. The deficit of public

(1) The least developed countries, and mainly those of sub-Saharan Africa, have since 1980 been in a very critical situation. The growth rate of their Gross Domestic Product per capita has become negative (-3,4% average during the period 1980-1986). The most indebted countries and those of the Latin American region have seen their per capita domestic product decrease an average of 1,8% during the period 1980-1986. In most of these countries, the economic constraints will probably not loosen in a near future. Their investment and development capacity will continue to be limited by the size of their debts and the need to restore their balance of payments - while world trade increases slowly and the cost of raw materials and agricultural products stagnate.

AVERAGE ANNUAL GROWTH RATE OF PUBLIC EXPENDITURE ON EDUCATION (PERMANENT PRICES)

	1960/65	1965/70	1970/75	1975/80	1980/85
Developing countries	10,5	8,7	7,7	7,2	7,0
Africa	9,6	8,9	8,6	6,6	6,8
Asia	9,3	8,6	8,3	8,3	10,3
Latin America and the Caribbean	12,1	8,7	5,9	6,8	4,3
Industrialized market economy countries	10,7	8,0	6,8	3,6	1,2
Oil-producing countries	13,7	9,9	11,8	7,8	6,2

Source: J.C. Eicher, "L'évolution des systèmes d'enseignement dans le monde de 1960 a nos jours", Unesco, ED/EFP, 1985.

finances has increased so much that governments, in order to regain their internal solvency, have to adjust the progression of public expenditure to that of the Gross National Product. The latter to a great extent depends on the state of world economy (1). Under these circumstances, the problem is what priority education financing has in comparison with other sectors, other categories of social expenditure and other investments. Education, in its present state, has not lived up to the hopes placed in its development, in spite of all the promises and statements of those responsible for its development, including and maybe mainly, education planners. There are now doubts about the main principles behind increasing expenditures on education, i.e. its contribution to economic growth, as well as its role in promoting social justice. Unemployment among graduates, migration of educated rural populations towards cities, persisting inequality, brain drain and some reticence from families towards elementary education, have all contributed to create doubts regarding the advantages of education, as it is provided today. This doubt is also directed towards those in charge of education, and their will, or capacity, to face reality, to find and carry out appropriate solutions, even if they may change the sector and upset the habits of its users and decision-makers.

Education systems have become inadequate, quantitatively and qualitatively. Insufficiency of basic education, persisting –sometimes increasing– illiteracy, shortage of technicians and engineers in spite of the interest in higher education, lack of vocational training, low education efficiency and resulting waste; all these facts bear witness to this situation. In these conditions, attempts to mobilize new financial resources for education are met with some scepticism.

The problem is so great and of such a nature that "short range" solutions –mending solutions– would only worsen the state of education and reduce even more its role in the economic, social and cultural development of the country. Those is charge of education, and not only the planners, have to face a task unknown so far, both in its complexity and its urgency. They must now try to act convincingly as regards the value of expenditure in the sector and the efficiency of the education system. Words are no longer enough to convince finance and planning ministries.

Recent Trends in Financing of Education

In most countries, there is a noticeable slowing down of growth of public expenditure on education. This trend varies considerably from industrialized to developing countries. In industrialized countries, as an answer to the crisis, the average annual growth of public expenditure on education has been adjusted to the evolution of economic growth. In countries with low demographic pressure and high demand for the higher levels of education beyond compulsory shool, it has been relatively easy to make this adjustment. In fact, since 1983, most industrialized countries have limited their public spending on education to approximately 5.5% of their GNP.

The economic crisis hits developing countries later that it did developed countries. In

(1) The least developed countries, and mainly those of sub-Saharan Africa, have since 1980 been in a very critical situation. The growth rate of their Gross Domestic Product per capita has become negative (–3,4% in average during the period 1980-1986). The most indebted countries and those of the Latin American region have seen their per capita domestic product decrease an average of 1,8% during the period 1980-1986. In most of these countries, the economic constraints will probably not loosen in a near future. Their investment and development capacity will continue to be limited by the size of their debts and the need to restore their balance of payments –while world trade increases slowly and the cost of raw materials and agricultural products stagnate.

PUBLIC EXPENDITURE ON EDUCATION AS A PROPORTION OF GNP (RECURRENT EXPENDITURE, PERCENTAGE)

	1965	1970	1974	1980	1982
Developed countries	4,30	4,86	5,24	5,55	5,64
Developing countries	3,13	3,69	3,69	4,35	4,65
Africa	3,11	3,56	3,86	4,70	5,03
Asia and the Pacific	3,00	3,32	2,93	3,54	3,94
Latin America and the Caribbean	3,32	4,09	3,49	4,77	4,91

Source: World Bank; Unesco

the beginning, the conditions of exhange improved, partly following the price increase of oil products; this explains why the growth of the GDP remained at the high level of 5,4% during the period 1973-1980. Only from 1980 onwards did developing countries experience a lasting economic crisis. Faced with strong demographic pressure and without having reached their objective of full school enrolment, most of these countries experience an almost mechanical increase of their education expenditure and have not been able to adjust it to the reduced growth rate of the GNP. On the contrary, they have had to increase expenditure on education considerably. From 3,7% of the GNP in 1974, public expenditure reached 4,7% of the GNP in 1982. Africa, with an economic situation far worse than elsewhere, is the region which most increased its public spending on education.

Because of their public deficit, developing countries are now forced to reduced the progression of their public expenditure on education so as to adjust it to economic growth. For the developing countries as a whole, the average annual growth of the GDP for the period 1980-1986 was only 3,6%. The situation is even more difficult for the countries of sub-Saharan Africa, whose GDP has fallen at an average annual rate of -0,4%; and for the heavily indebted countries whose GDP only increased 0,6% per year during that period. Between 1980 and 1982, the growth rate of education expenditure was of 7%. Half of that, i.e. 3,5% growth per year, is however closer to reality and will probably remain so for a long time yet. They key question addressed to this seminar, is therefore how each country can and should face such a slow down in the pace of growth for education expenditure and what will be the consequences for the structure, functioning and contents of education and for its quantitative and qualitative development.

Expected Effects of the Slow-down of Public Resources Allocated to Education

Budgetary constraints modify the context in which the proposals for development of education are made. The question is: Does austerity naturally lead to more economical and efficient educational choices and management methods, without requiring major changes? Or will budgetary restriction give rise to decisions which prevent reforms and innovations? Could the reforms suggested so far not be applied, since budgetary constraints had little incidence on them? There are as many answers to these questions, as situations in each country are diverse and complex.

Effects on Behaviour

The limited recources available for education make the need felt for particular efforts in several fields: to restate the goals of each education level; to make a realistic appreciation of needs versus means; to take measures to make the education system more efficient; to eliminate waste and make savings in school management. This list of well-known good intentions has had prime space in all education plans so far, with scarce results. It will probably be so in the future as well if the limitation of expenses is not paralleled by new dynamic attitudes and practices, i.e. among education policy officials, education resource managers, teachers and even education users, inasmuch as some of the proposed solutions to save or to raise supplementary financing envisage participation of the students and their families. With the steps recently taken in several countries, one gets the encouraging impression that the time is over when everything was questioned in often sterile debates on the goals of education, methodologies of study, or appreciation of the accomplishments of the sector; that a new period has begun with an analysis which is less theoretical, more convergent and closer to reality, since its essential aim is to clearly state the facts and options that the decision-makers are facing.

Decisions leading to savings on the one hand and to increasing resources, on the other, are difficult to take. They must therefore

POSSIBLE FRAME FOR A SENSITIVITY ANALYSIS

Dependent Variable	Data Sources
School quality	Achievement analysis (examination results) Teacher education/qualification Inspection reports Attendance rates (teachers and pupils) Classroom research Curriculum analysis Project evaluations In-service/on-service feedback Clients opinions (pupils and parents) Equipment/materials provision Class size
Equity	Participation rates Promotion patterns Performance on selection tests School-quality variations
Internal efficiency	Unit costs Drop-out/repetition rates Building/equipment utilization Teacher deployment
External efficiency	Labour-market absorption Tracer studies of school-leavers Employer/employee interviews Skill inventories Survey of formal/informal/traditional sector employment
Nation-building	National language acquisition Awareness of ideology Institution-building Localizing expatriate posts

be understood and accepted by all. If they are, one can hope for more accountability at all levels of administration and for greater decentralization which might make the educational system more efficient. A great deal of attention should be given to establishing better tools for statistics, analysis and information - essential conditions for a new sector policy and a more efficient management of educational resources.

The trend is thus towards a "managerial" culture to reach more efficiency in the allocation and use of resources. Good management can be a source of progress, but its limits must be understood. Limiting costs in education is not an aim in itself, and the apparently least costly solutions are not always the best for the development of education. Education is a public utility to be consumed collectively or individually. In periods of austerity, any modification in the way of allocating and spending education recources should be examined in the light of five dimensions (see following frame): quality, equity, internal efficiency, external efficiency, nation-building.

Management principles are only part of the analysis which leads to decision-making. Hence, if these principles are essential –at the behavioural level for the administration of education often conservative and badly prepared for economic or financial management– one must also be aware of the risk of applying a too limited conception to a complex reality. The margin is narrow, and difficult to perceive, between, on the one hand, economical management of the education system leading to better results within the limit of available finances, to more clearness and accountability and, on the other hand, an attitude of strict economizing which, in the decision-making process would lead to an education system suiting financial criteria only.

The still widespread opinion that such criteria as cost-efficiency (internal and external),

or simply cost-result, are not pertinent, has not yielded feasible answers to the problems caused by austerity, either.

Budgetary restrictions associated with lack of prospects can lead to modified behaviour and change of objectives inside uneasy institutions. A "culture of cuts" may be the result: staff who can identify possible savings and justify them are encouraged, and individual, or corporate trends towards self-preservation develop. As a result, immediate conditions and short-term vision prevail; conservative tendencies are encouraged, and attempts are made to reduce costs of existing structures to a minimal survival level; savings are given priority over improvement of access and equitable distribution of services; a spirit of siege develops, in which spending existing resources is given more importance than searching for new resources outside the institution. The stress placed on finance control reinforces the central power to the detriment of local authorities.

However, the worst effects of prolonged austerity are on school officials and even more so, on teachers. In many countries, cost-cutting measures have consisted in maintaining, or even reducing teacher salaries, by not reflecting inflation, by recruiting less qualified teachers, by increasing workload, or by reducing allocation of school materials and support services. The resulting staff demoralization can only harm teaching quality. This situation can become alarming: teachers faced with lower purchasing capacity take on second jobs to make up for their loss of income - mostly outside the education sector. They reduce their hours of contact with the pupils and pay less attention to school work and to class results.

It is obvious that austerity can affect the cultural environment around education policies and planning and around teaching. Three currents are confronted: the first, defensive, is turned towards the past and resists change; the second, pragmatic, looks for ways of coping with an apparently unavoidable situation; the third, reform-minded, stresses the future and innovative solutions.

Effects on Education Policies

In the beginning of the eighties, developing countries were shaken by three types of outside shocks: the price-drop of basic products, the higher interest rates and the slowing down of transfer of international capital. High-debt countries had to work out adjustment policies to restore their solvency. Such policies aim at restoring macro-economic balances by relaunching the balance of external exchange, by limiting internal demand, by reducing the deficit of the State budget and increasing savings and productive investments. Specifically, such policies lead to more taxes, to freezing salaries, mainly in the public sector, to limiting imports and to cut down internal consumption of exportable goods. To reduce public expenditures, governments are led to reconsider their intervention in public enterprises and price policies aiming at subsidizing essential consumer goods and look for savings on social services. This reduction of the financial intervention of the State is paralleled by encouragement to develop the private sector.

Applying adjustment policies, most State budgets have reduced not only direct social expenditure per inhabitant, but also expenditure on education, health, social security or housing.

Resources are redistributed within education budgets to the detriment of non-salary expenses and capital expenses. The salary part of recurrent budgets is extremely high in developing countries (between 83 and 93% at the primary level). The quality of education is therefore endangered by the lack of pedagogical materials. With no investments, the in-take capacity of schools cannot grow, and this will in turn reduce shool attendance rates and increase illiteracy. Furthermore, teaching quality will not improve if new technologies are not introduced. School buildings and equipment are not maintained, due to lack of credits, and that, as well, will in time diminish to in-take capacity.

When resources are allocated by level of education, secondary and higher education seem to get a better share, the ultimate goal always being passage to a higher level. Pupils are automatically encouraged to continue their studies, with the resulting financial consequences for the State, since unit cost increases with a higher level(2). The situation becomes worse in periods of high unemployment: when low qualification jobs are rare, pupils tend to pursue studies in order to obtain the higher diplomas required.

Higher and secondary education often enjoy more social and political support from planning and finance ministries than does elementary education. This is due to the desire of some social classes to strengthen their position in the social, political and economic structure of society. But it is also due to the fact that some governments fear, and wish to avoid, student protest and rebellion. Hence

(2) In Africa, recurrent expenses per student (unit cost) in higher education are about sixty times, and in secondary education about nine times, higher than in primary education. In Latin America, the ratio is 15:8/1.

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CENTRAL GOVERNMENT EXPENDITURE FOR EDUCATION IN SELECTED DEVELOPING COUNTRIES (AS PERCENTAGE OF TOTAL EXPENDITURE)

	1972	1983
Argentina	8.8	7.6
Brazil	6.8	3.7
Bolivia	30.6	26.9
Chile	14.3	13.7
El Salvador	21.4	16.6
Ghana	20.1	18.7
Mexico	16.4	11.0
Lesotho	19.5	17.4
Panama	20.7	11.0
Peru	22.7	18.5
Sri Lanka	13.0	7.1
Sudan	9.3	6.1
Turkey	18.2	12.5
Uruguay	9.5	6.5
Zambia	19.0	15.2

Source: World Bank, World Development Report 1986.

PUBLIC EXPENDITURE ON EDUCATION AND DEFENCE AS PERCENTAGE OF TOTAL EXPENDITURE AND TOTAL PUBLIC EXPENDITURE AS PERCENTAGE OF GNP 1972 AND 1985

	Central Government Expenditure as Percentage of Total Expenditure				Total Expenditure as Percentage of GNP	
	Defence		Education			
	1972	1985	1972	1985	1972	1985
Low-income countries	17,2	18,6	13,2	7,6	18,0	20,3
Lower-middle income countries	15,7	14,2	16,4	13,9	19,4	24,8
Upper-middle income countries	14,4	9,7	12,3	10,6	19,7	22,7
Developing countries	15,1	12,1	13,8	10,4	19,3	22,3
Oil-exporting countries	17,2	9,8	12,7	13,7	16,9	26,4
Countries exporting manufactured goods	13,7	13,4	9,6	5,3	18,7	20,1
High-debt countries	12,0	6,4	14,0	9,9	17,8	20,8
Sub-Saharan Africa	20,2	11,2	13,2	14,5	16,4	23,7
High-income oil-exporting countries	9,0	23,6	15,2	11,1	21,1	29,1
Industrial market economy countries	20,9	16,8	5,4	3,8	22,9	29,1

Source: "Rapport sur le développement dans le monde", World Bank 1987.

the reticence, and at times incapacity, to carry out structural reforms which could not only improve internal and especially external reforms which could not only improve internal and especially external efficiency of higher education, but also change allocation of budgetary resources so as to give more to elementary education. It becomes impossible to carry out reforms since higher (and secondary) education has produced sizeable critical political-social groups. The scholarship system an other social benefits for students tend to worsen this situation. In many countries, it is more advantageous for the individual student to go on studying with a scholarship than to accept a job. Facing this critical situation, governments find it easier not to extend access to primary education and not to seek ways to

avoid dropout at this level; that again affects schooling, mainly in rural areas and among poorer populations, whre there is less risk of negative reactions to austerity measures.

The non-formal education sector is more vulnerable than the formal system, inasmuch as it draws less on institutional finance, is more diversified and is less protected by pressure groups. It is easier for the State not to assume short-term training activities frequently addressed to restricted and sometimes marginal groups. Adult education, preschool and out-of-school education are particularly threatened.

Proposals have been made, and carried out in some countries, to make parents bear part of school costs, for example school fees and annex services which were free up to now (books, materials, school cafeteria, transport). If applied to compulsory education without taking income conditions into account, this policy may go against principles of equity. With school expenses exceeding their means, families give up sending their children, mainly the girls, to school.

In a general way, austerity compromises a country's capacity to carry out the research, experimental curricula and innovative experiences which might lead to solutions of each country's specific problems. The flow of external resources to this effect may also be jeopardized, since it is often linked with the effort made by the country itself to conceive and identify projects and financing at the national level.

For some people, the consequences of the slow-down of public resources allocated to education open up perspectives not liable to encourage reforms and ideal education policies, which are all based on the assumption that financial resources will not truly be an obstacle and will sooner or later become available. Unfortunately, austerity has done away with this hypothesis. Worse, it has strengthened tendencies denounced already some twenty years ago, when education was an absolute priority. For others, they very effects of budgetary constraints reveal that it is feasible to identify reforms and innovations which, without jeopardizing the quality of education and equity in the distribution of educational services, may mobilize resources and improve education efficiency. Itself the results of the broader crisis of national economy and world economy, the crisis of education financing at least has the merit of clearly revealing problems and causing changes. A period of "laisser faire" with spectacular progress in education, but also with greater imbalances and rigid systems, is coming to and end. It will be followed by a period which has in fact already started, less stable, more risky and dangerous for the vulnerable, but surely more open to the important changes needed to give the education sector back its key role in the country's development.

Cost reduction

Expenditures on Salaries and Pedagogical Support

The principal method of transmitting knowledge has hardly changed in school systems: with a variety of teaching aids, teachers provide education to a group of pupils. The result is a cost structure in which payment of qualified work, i.e. teacher salaries, weight heavily when compared to other recurrent expenditure. Salaries represent between 70 ans 80% of recurrent expenditure for the entire education sector. In elementary education, where public expenses for pupils (school material, scholarships and grants) are minimal, if at all, the salary bill is even more important (93% in Africa and Latin America, 83% in Asia, 80% in OECD countries).

At the secondary level, teacher salaries represent between 60 and 80% of recurrent expenditure. The difference with the primary level lies in the fact that secondary institutions are well equipped with school material, financed to a large extent by the Stage budget. Also, the number of boarding schools is high in many countries, and part of the cost thereof, if not, all, is financed by the State budget. To this can be added, at the higher education level, scholarships which may reach 65% of total expenditure.

This cost structure limits alternative possibilities of reducing expenses. It would be disastrous to lower expenses on school materials in the primary sub-sector; they are already so low that the usefulness of elementary education and of the enormous financial effort which teacher salaries represent, would be jeopardized. On the contrary, spending on school materials should be increased in order to improve the effects which elementary education can have on economic and social development.

On the other hand, savings could be made on such budgetary items as social expenses for pupils in secondary education and students in higher education: thus, seen from a standpoint of social justice, beneficiaries of secondary and/or higher education should themselves contribute to the financing of their studies.

Some external funding sources recommend acting on teacher salaries, either by reducing them or maintaining them at their present level, or by increasing the workload per teacher with unchanged salary. It does,

SCHOLARSHIPS AND STUDY GRANTS AS A PROPORTION OF RECURRENT PUBLIC EXPENDITURE PER SUB-SECTOR AND REGION (PERCENTAGE)

Sub-sector Region	Elementary	Secondary	Higher
East Africa	1,8	10,2	35,2
West Africa	2,8	22,0	65,6
Asia	9,3	4,3	6,5
Latin America	3,7	4,1	17,4
OECD countries	5,2	5,6	13,7

Source: "Financing Education in Developing Countries", World Bank, 1986.

EXPENDITURE ON SCHOOL MATERIALS IN THE PRIMARY SUB-SECTOR, 1980

Region	School material per pupil	
	Amount (in US$)	Percentage of Recurrent Expenses
Sub-Saharan Africa	2,2	3,1
East Asia	2,5	1,4
South Asia	1,7	8,1
Latin America	9,9	3,9
Developing countries	4,8	3,4
Developed countries	105,5	3,6

Source:: "Financing Education in Developing Countries" World Bank, 1986.

however, seem little realistic to envisage a cut in teacher salaries, even if teachers in some countries are in a far better situation than their counterparts in other countries. Firstly, teacher unions would strongly oppose such measures. Moreover, a salary cut would destroy teacher motivation and deteriorate relations with the school institution, at a very time when teacher participation is needed to carry out reforms to cope with the education crisis. Moreover, there is a built-in upward drift of teacher salaries because of incremental scales according to seniority and the age –pyramid of teachers– broad at the bottom because of the recent quantitative development of education systems. Moreover (as mentioned in paragraph 1.19 above), the purchasing capacity of teachers has deteriorated drastically over the last years and, in a growing number of countries, teachers, especially elementary school teachers, have to seek income sources outside school in order to cope with their families' essential needs. Their work is obviously affected thereby, both quantitatively and qualitatively.

Increasing the workload without better salary may be another way of limiting the progression of the salary bill. But only if the pupil/teacher ratio increases noticeably and lastingly. This depends on the combined effects of factors as for example curricula, time schedules, teaching organization (teacher per class, or teacher per subject), size of the school (enrolment), in-take capacity of classrooms. Furthermore, already underpaid teachers would have to accept an increasing workload without extra pay which would make them unable to work outside school. Also, the teacher/pupil ratio in elementary school, mainly, is already close, if not higher than the limit, beyond which a teacher is no longer able to teach. When a class counts 50 or more pupils with neither books, pencils, nor paper, the teacher is unable to teach because unprepared for such a task; it is inappropriate, despite the conclusions of recent research, to say that there is no correlation between class size (per teacher) and the quality of education provided and measured by achievement rates.

Reasoning with global data in this way, one may conclude that there are no ways of limiting the increasing teaching costs in the school system and the public financing needed to cover them. However, studies undertaken by Unesco (with education, planning and finance ministries) in a number of

countries (3) show that organization and utilization of resources can be improved. In some countries, for example there is a long way to go to reach effective distribution and full use of teachers. At the institution level, resources are not always fully used: teachers with less than normal number of teaching hours; teachers (up to 15% of the total) assigned to tasks outside class or simply "at disposal", waiting sometimes for years for an assignment; a surplus of non-teaching staff; only partially used classrooms, equipment and material. Increasing the size of the school could lead to savings since resources would be used more effectively. Furthermore, in specific situations (topography, demography), multi-grade teaching, i.e. one teacher teaching two groups of pupils simultaneously, could be envisaged, as is the case in several countries. This would increase the utilization of teacher time and classrooms, but would result in the teacher devoting less time to the pupils and might therefore lower the quality of education. All these measures could reduce costs and therefore public expenditure on education. But identifying them, making them operational and carrying them out require an analytical know-how and capacity which do not always exist.

Pedagogical Innovations and Cost Reduction

Cost reduction possibilities are limited when reasoning follows budgetary lines only. Those in charge of education therefore have to seek innovative pedagogical processes and new educational technologies which would allow cutting down on training unit cost and slowing down expenditure growth and therefore budgets, by improving the system so as to reach more pupils, by diminishing drop-out, by improving school achievement and by cutting down on the number of teachers needed. Innovations could be in the field of teaching methods, class organization (pupil groups according to aptitude and subject), curricula, school books (content, presentation), evaluation methods and criteria (upon entering school, during studies and at the end). Innovation could also come from new educational technologies (radio, television, computers) and the training process.

The explosion of communication means and the development of the labour market make it necessary for the education sector to open up and adapt to new technologies. How, for example, can education systems help to develop a national identity and preserve cultural values, when people will be able to receive programmes conceived abroad and transmitted by satellite? How can secondary and higher education train qualified people, when computerization is penetrating all professions rapidly, even in developing countries? It is now recognized that these new technologies, including radio and television which consist essentially in introducing techniques to replace teaching, will not necessarily be less expensive. Encouraging self-learning by the use of educational radio, school television or computers is not, as was first thought, a solution in which fewer teachers would be needed. Existing experiences of educational radio programmes have been too specific, reached too small an audience and have had too short duration to make efficiency analysis trustworthy. And yet, they reveal that the best results are obtained when radio is associated with communication between individuals; the system becomes very expensive and is therefore not a valid alternative to more traditional methods.

Television can be used in much the same way and with similar objectives as radio, but with far higher production and transmission costs. The cost of an average-size television station would be enough to build 70 local radio stations. In fact, the question should be seen differently: educational television is realistic, from a financing point of view, only if it uses an existing network during inoccupied time periods, or feeble audience periods. There are not enough experiences, and the audience reached is too restricted to draw any valid conclusion as to cost. Seen in terms of efficiency, television can improve results in poor rural areas when it is used in support of school curricula (tele secondary in Brazil and Mexico). The T.V. environment, and more generally speaking, communication is developing too rapidly to use past experiences as a basis for a new strategy. It is certain, however, that it will become more and more difficult for education systems to fulfill their role adequately if some osmosis and coordination are not reached with as powerful a communication media as television. Apart from the financial aspect, most countries no doubt lack the capacity to create and produce pedagogical curricula, and the desire to seek solutions outside institutional education. Today, only a few countries and some big corporations –through

(3) Since 1980, about sixty sectoral studies have been undertaken (twenty of which for the Latin American region), most of them as part of programmes for the external financing of education (World Bank, African Development Bank, Asian Development Bank, UNDP, Unicef). Each study contains a detailed analysis of the sector, identification of key problems, proposals for solutions (including reform outlines) and identification of projects liable to attract external financing.

the markets they control– are able to meet the cost of producing audio-visual pedagogical curricula.

Acquisition of knowledge and school achievement may be improved by combining a series of factors (teachers, teaching support, schedules). By diminishing class repetition, school dropout and failure, such measures may lead to a reduced unit cost (of year: pupil or graduate, for example). The following measures are often envisaged in education ministries:

- reduce the time needed for learning: for example, to reduce class repetition so frequent in the first years, it is suggested to take action at the pre-school level by early stimulation combined with better feeding, training of parents and development of kindergarden in-take capacity;
- increase the time the pupil is willing to devote to learning: At the root of school absenteeism, particularly high in poorer areas, are to be found factors such as the socio-economic condition of the family, the low level of education or its unsuitability to the situation or the expectations of the child and its parents. In order to motivate and strengthen the child, more attention should be given to his progress, his marks and to promotion system from one year to the next. Setting up of working groups and workshops, etc., can motivate the child's interest and prevent school failure.
- improve the quality of teaching. Four types of initiatives are recommended: more individualized teaching for children with learning difficulties, motivation and qualification of teachers and school officials through training, more knowledge of the education process by better measuring of school achievement and, finally, provision of school books to pupils who cannot afford to buy them.

It may surprise that such measures are envisaged since they will increase costs. But it should be kept in mind that innovations so far have been sought firstly for reasons of equity, of access to education for disadvantaged groups, of adapting the contents of school programmes to development needs and, only in the last resort, for reasons of reducing costs and expenditure growth. The cost of innovations and their long-term economic and financial efficiency have only been analyzed in a limited number of cases, generally when an external financing source (often the World Bank) wished to see if they could be applied at a larger scale, for an entire sub-sector or sector.

Whatever innovations are envisaged, introducing them and developing them will call for budgetary resources over several years, over and above the resources needed to make the present system function. Education officials find themselves in a dilemma:

- On the one hand, budgetary austerity calls for innovations which may generate cost reduction and slow down expenditure growth; the conjunction of a mediocre economic situation, rapid growth of the technological environment and a strong demographic growth call for innovations and reforms which would blow life back into the education sector and give it back its key role in development.
- On the other hand, introducing these innovations and reforms will be expensive and call for considerable budgetary provisions.

In effect, in most countries we find a seemingly paradoxical situation: to find savings and reduce costs, expenditure has to be increased over a period of several years while at the same time maintaining the quantity and quality of education. Neither governments, nor their external partners (funding sources) can avoid that logic, or else they will see the education systems shrink and deteriorate.

Until now, a prototype for innovations has not been found, presenting all the advantages and liable to be copied at a large scale, whatever the circumstances and environment. It is more a question of many ideas and techniques which could be added to existing ingredients in specific cases, if political will is there, and a lot is left to local and individual initiative. The problem and its solution lie not only in financing but also, and maybe more, in motivation and in change of habits and mentalities. Most innovations call for a reorganization of school and a transformation of the teaching profession. The problem also lies in the national lack of capacity to analyze and evaluate the proposed innovations.

Diversifying the internal origin of financial resources

Diversifying public resources: Decentralization

Education financing essentialy comes from the public budget (budget of the central government and/or other government authorities, such as provinces, federal states, municipalities). Shortage of public finances makes authorities seek finances from, for example, local associations or organizations. With such financing, the central government transfers part of its responsibility, and part of the cost, to a local level. Local authorities, rejecting the de-

grading of education, or lack of it, may also take the initiative and take over part of educational expenses (building and maintenance of schools, setting up a complementary facilities such as cafeterias, transport, and even financing of teacher posts).

At the end of the colonial period, the need was felt to strengthen the State and develop national unity; State centralism in the field of education was strengthened in the search for more equity and by the effort needed to organize and develop schooling. Occurring as it did at a particular point in the country's development, this tendency is not unavoidable. The crisis of financing and of education, but also the development of communication means and computerization, can reserve it. If the goal is to restore priority of education with all its diverse needs, more efficient and original approaches must be sought, motivation and sense of responsibility must be given back to those who participate in, and benefit from, the education process. Seen from this point of view, the centralism observed in most countries seems archaic. There is no panacea which can solve all the problems of education development, not even decentralization. But the experience of countries with a decentralized education sector shows that decentralization gives users power to decide on important aspects of education (opening and organization of schools, school buildings, curricula linked with local and regional activities, teachers recruitment and selection). In this way, the social, cultural and economic interests of users are better served and the latter consequently more disposed to participate in financing. They are also in a better position to control fund raising and decide where funds should go and what for, whether such funds come in the form of local taxes, school fees or purchase by families of school material. Responsibility can also give rise to special watchfulness as regards costs, which mays then decrease.

When these conditions are filled, one can expect (i) a diminution of the State's share of education financing and of the volume of public expenditure on education, and (ii) a growth of all financial resources, from all origins, at the disposal of the sector. It will no longer be a question of just transferring the State's role in mobilizing resources and cutting costs, to local organisms and individuals, i.e. moving the problem of crisis management elsewhere. However, the effects of decentralized fund raising may be lost if funds collected are channelled through and managed by central government organs. In other words, in order to remedy the shortage of public financing, both fund raising and utilization must be decentralized. It goes without saying that the financial effort required of local organisms must be proportional to their fiscal resources (4).

Community Participation

The term community participation covers a series of initiatives in the field of education taken by community organizations at the local level, generally the village. It can come in many shapes (providing land or buildings, school construction and maintenance, school management) and help limit State expenditure. It is by the way not easy to distinguish between community schools and local initiatives in a case of decentralization.

The degree of integration of community schools into the overall school system is important; the State must in effect make sure that criteria for admission, quality of education, sanitary conditions and security, certification of examinations and conferring of diplomas, are respected, and at the same time it must avoid exercising control which would discourage community initiatives and efforts (5).

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(4) One objection to decentralization is that the ideals of national solidarity and equity in distribution of education will be countered if local groups are called upon to participate. It is true that wealthier local organisms are in a better position to raise the extra financing needed to provide quality in education. In developing countries, there are such differences in income between urban and rural areas that the imbalance, at first sight, would be worsened by calling upon local financing. However, this argument does not stand analysis. Today's school systems promote strong demand expressed mainly in wealthier areas and especially during periods of austerity. On the other hand, decentralization strengthens local power and hereby encourages the political expression of the demand.

(5) In rural areas of developing countries, this contribution can be considerable, as shown by the examples of Guyana, Zimbabwe, Kenya or Nigeria.
From the colonial period, Zimbabwe inherited different categories of schools financed to varying degrees by communities, and the country is now facing a delicate problem of equity in the distribution of public financing and of equality of chances in education. Free elementary education, established in 1984, has resulted in a rapid progression of public education expenditure. Nevertheless in order to shift a greater share of education expenses to families, communities or private organizations, school fees were raised in the public sector, and local groups as well as families have to bear the cost of building primary schools. On the basis of pedagogical standards and through contracts with the institutions, the State bears the cost of teacher salaries and pays a grant to each pupil, while the local

SUBSISTENCE ALLOWANCES PAID TO STUDENTS AS PROPORTION OF THE RECURRENT EDUCATION BUDGET, BY LEVEL (LAST DATA AVAILABLE, PERCENTAGE)

Region	Elementary	Secondary	Higher
East Africa	1,8	10,2	35,2
West Africa	2,8	22,0	65,6
Asia	9,3	4,3	6,5
Latin America	3,7	4,1	17,4
Europe, Middle East & North Africa	2,0	4,0	19,1
OECD countries	5,2	5,6	13,1

Source: "Financing Education in Developing Countries", World Bank, 1986.

When financial shortage is lasting, there may be problems in integrating locally financed schools into the overall planning of the education system. The motivation behind voluntary fund raising to build new schools must be equalled by the State's willingness to extend schooling and subsidize such schools. Community participation is easier to promote for a given, time-limited project, such as the building of a school, than to convince communities to bear permanent functioning costs.

Families: School Fees

Transferring part of public education financing directly to the beneficiaries, i.e. the pupils, students and their families, is justified most of all by the very strong demand for education, mainly at the higher levels, which must be controlled if balance is to be reached between private high benefit education expenses borne by pupils, students and their families, and social, low benefits of the educational investment financed by the public budget; it is also justified by the positive effects on equity and, finally, by the fact that a redistribution of public resources within the education sector now becomes possible.

The transfer of financing can be done through establishment of school fees and by eliminating social benefits, such as subsistence allowances.

Higher education is especially concerned here. Its share of recurrent public expenditure on education has been in constant rise, while full school enrolment in primary education is far from having been reached. This imbalance in distribution of resources is not justified since society has twice as much to gain from primary education as it does from higher education. Moreover, the high private benefits from higher education generate excessive demand even in fields with a surplus of graduates for the needs of the country. Higher education students benefit not only from gratuity, but also from subsistence allowances, which are extremely costly in East and West African countries. The system is profoundly unequal, since many students come from privileged social groups, at the expense of children who only have access to primary education. Recuperating resources from the higher levels of education by reducing subsistence allowances, setting up tuition fees, and reassigning part of the savings to elementary education would thus have the double advantage of decreasing demand for higher education and of widening access to elementary education, strengthening its quality and equity. To be equitable, the policy of recuperating costs at the family level can only be applied to higher education, i.e. beyond compulsory education; free elementary school must be preserved; a system of tuition grants, loans and scholar-

(5) (Cont.)
communities bear all other costs to improve the quality of education. The system has not reduced disparity between town schools and rural schools, nor between public and private schools. On the contrary, the town schools, with pupils from privileged socio-economic groups, are financed with the help of the families and have been able to recruit more and better qualified teachers and have more complete programmes.
In Kenya, in order to solve the financial problems caused by the expansion of elementary and secondary education, as well as the lengthening and gratuity of the primary education cycle, the government has made efforts to diversify its resources through voluntary contributions from communities to their school through the HARAMBEE (self-help) system. Two education systems co-exist: The HARAMBEE secondary education financed exclusively by voluntary contributions and school fees, and the government subsidized system. The HARAMBEE system in elementary education is mainly used for the building of schools. The volume of voluntary contributions is increasing constantly.

ships must be set up to help students from low-income families to accede to higher education (6).

The reallocation to basic education of financial resources recuperated from higher educational levels is however made difficult by the situation in higher education. How, in fact, can it be made acceptable that student contribution is increased ant their financial advantages diminished, without the resulting resources being used to improve the quality of education at that level? Since the crisis started, some countries have limited their spending on higher education (without touching the scholarship system), while enrolment was in constant rise; the result has been lower unit costs but also poorer quality.

Productive Work In School

Experiments associating productive work with the learning process have been undertaken for pedagogical, financial and political reasons. The idea is to reconcile school organization and curricula with the work conditions the pupils will face when leaving school, to integrate the school into its social environment –aiming eventually at eliminating the distinction between intellectual and manual work– and to relate pedagogical experiences to available resources and the economic context. Although it is important that such schools are capable of generating part of their functioning resources, that is not the essential goal.

Such experiences are of interest because they may help to reduce school dropout and guide pupils towards productive work, but they are probably not the solution to the problems of financing education. Generalizing them would lead to more expenses on equipment and teacher training, with income which must remain modest if schools are not to become factories and child labour reinstored (7).

However, in a period of austerity and for teaching with a technical component, the products made by students can contribute to covering part of the cost of teaching material (in average not more than 5% of the running costs in most developing countries; in some of the poorest African countries, the average is 1,5%). Over and above the pedagogical interest, such productive work can create healthy stimulation for both students and teachers by improving the material conditions.

Private Firm Resources

Commercial firms and companies can contribute to the financing of the education sector in two ways: either by contributing directly to educational activities in schools and universities, or by organizing such training activities themselves.

In the first case and within the framework of fiscal encouragement for this type of actions, private firms act through foundations and private associations financing, for instance, study grants, research programmes, university libraries, school equipment and more specific actions such as literacy campaigns, educational television programmes or agricultural extension. In most developed countries, private concerns finance a significant part of research activities and higher education.

Can private concerns contribute significantly to the financing of education? The legal aspects of their contribution, especially the tax question, and the sharing of responsibility between the State and the private firm must first be established. In some cases, such as the Brazilian SENAI financed by income taxes from the entire industrial sector, the contribution is significant: the SENAI secondary schools count about 15% of total secondary enrolment. The system is widespread in many industrialized countries and has been adopted in half a dozen Latin American countries. In other cases, private initiatives remain isolated and unconnected with the public education system; the contribution is therefore marginal, although it may be indispensable for a specific programme or for the development of a particular educational institution.

Private firms have always played an important role in the field of training. During the first industrial revolution in developed countries, private initiative in education often preceded State intervention. In Scandinavian countries, Germany (FRG), Switzerland and Austria, to mention only some, nearly all training activities are organized and financed by private firms.

Many countries have set up a special taxing system of commercial firms financing initial vocational training. Moreover, management of human resources and hence on-the-

(6) Some critics stress that this system is difficult to administer, and that functioning costs may be too high for the small amount of the loans and the difficulties in reimbursement. However, the experience of Latin American countries, of some African countries (Kenya, Lesotho, Swaziland) and some Asian countires (India, Malaysia, Pakistan, Singapore and Sri Lanka) seems to indicate that such systems are viable.

(7) In some developed countries, sale of products manufactured by vocational education students represents around 1% of the institution's running costs. But in other developed countries, such as the Scandinavian countries, Germany (FRG), Austria and Benelux, manufacturing products for sale is not part of the school programme.

job training of staff becomes an essential function of the firm. However, in planning education development, there is no co-ordination between the State school system and the training system set up by private companies. In this respect, it is significant that it is difficult, if not impossible, to obtain information on the size of training activities undertaken by firms and even more so on their contribution to the global education endeavour. It is true that the line is not easily traced between a public educational system with a collective education function through initial and general training and the vocational training organized by private firms to cover their own specific needs (hence reserved for limited groups of adults).

Certainly, in many developing countries, the resources financial and in kind– (donation of equipment, for example), which firms could and should raise for vocational training are far from exhausted. On the contrary, the training provided by public institutions and financed by the State, or to be more exact the manpower thus trained, is an expensive resource provided free of charge to the private companies. All private and public concerns without exception should be associated with the endeavour to adapt education systems.

Firms should participate actively in modernizing the system which today is doubly inadequate: it does not provide enough qualified technicians for industry which is undergoing in-depth technological changes, and it provides no preparation to active life for the 70 to 80% primary school leavers. That is why many countries try to develop post-elementary education, or a short, technical and pre-vocational secondary education. This strategy is well worth the effort from an economic point of view, because its goal is to adapt training to employment but also to divert part of the education demand on the higher and more costly education levels. There are however two obstacles in practically all cases where this approach has been adopted: the difficulty of orienting demand towards technical education considered unattractive socially, and lack of financial means for the initial important investment in equipment required by technical and technological education, as well running costs, and costs to renew materials, which are three or four times higher than for general education. Austerity makes this reorientation even more difficult and participation from private firms even more needed.

Mobilizing external financial resources: Recent trends and prospects

The Global Framework

For some years now, developing countries have experienced a decreasing flow of external financial resources at the very time when they are facing serious economic difficulties, and their foreign debts increase. In 1986, the total flow of resources (public financing of development, export credits and private contributions) was of 68,4 billion dollars (1985 prices and exchange rates) as against 118,1 billion in 1978. The drop is due essentially to the scarcity of credits and especially to the drop in direct private investments and credits granted by international banking. Bilateral and multilateral public financing capacity of development projects continued to progress at the feeble annual rate of 2,5%. Thus, direct external financing of development projects, including education projects, was not really endangered during that period. But, weighing heavily on the countries' financial situation, on their investment capacity and therefore on their growth rate, the drop in external resources has contributed to increasing the public budget instability, thus limiting the country's capacity to propose projects liable to receive public assistance for development.

The 1978-1986 period is also characterized by changes in the nature, orientation and the type of distribution of the assistance:

- The expansion of loan activities of banks and multilateral funds (the latter represented approximately 32% of public financing of development in 1986 as against 26% in 1978).
- The confirmation of geographical priorities favouring Africa and mainly sub-Saharan Africa (about 22% of public assistance).
- The increasing activity of non-governmental organizations, internationally but also locally, for example for emergency assistence. In 1986, donations from non-governmental organizations represented 7,5% of public assistance for development, as against 5,8% in 1978. To this should be added the increasing part of public assistance which is channelled through these non-profit making organizations of the private sector.
- Two opposing tendencies as concerns loan conditions: for loans granted by banks and multilateral funds, there is a tendency to tighten conditions (reducing reimbursement schedules); whereas bilateral assistance has become more liberal: mainly with regard to the members of the Development Assistance Committee.
- The stability of sectoral distribution of development assistance and especially the education part (about 9%). In the United Nations systems, there is a problem as regards the education share which, from

1978 to 1984, dropped from 6,9% to 3,4% in UNDP financing and from 20,8% to 12,3% in Unicef. The education share has remained more or less stable at about 4% for banks and multilateral funds.

Future Development

The medium-term development of assistance flows to developing countries depends to a large degree on the general trends of world economy and on the growth rate of both industrialized and developing countries. Prospects, as seen by the World Bank, envisaged two hypotheses: the lower one supposes that industrialized countries will not start significant structural reforms and will remain more or less protectionist, while developing countries will pursue their adjustment endeavour. The higher hypothesis supposes that developing countries, while continuing adjustment measures, must make their growth less vulnerable to external conditions. Industrialized countries must reduce the instability of payments and strengthen their efforts in view of structural reforms, by reducing protectionism and agricultural subsidies. In the better of the hypotheses, the level of average annual growth of the GDP for the period 1987-1995 (5,6% for developing countries, 3,0% for developed countries) will be higher than was the case during the years 1980-1987 (3,9% and 2,5% respectively). In the lower hypothesis, the 1980-87 trend will continue, with a slight drop for developed countries (2,3%) and an upward trend (4,2%) for developing countries.

Under these circumstances and whatever the hypothesis retained, private contributions in the form of direct investments will probably not reach the high level of the seventies, especially in countries where high foreign debt and structural handicaps will continue to weigh heavily, i.e. most sub-Saharan African countries and Latin America. As regards public development assistance, the Development Assistance Committee considers that it will probably increase more slowly than during the five last years (3,5% average annual growth).

Still according to this Committee, the present trends of development assistance will probably confirm the geographic sharing out: priority will be given to sub-Saharan Africa, to the poorer countries in Southern Asia and to high-debt countries in Latin America. The priorities are not clearly established from a sectoral point of view. The tendency in all fields is towards seeking reforms and actions liable to improve the efficiency of public and private institutions and services, in order to solve the problems of extreme poverty and cover the needs of the most deprived populations. Generally speaking, priority is given to efforts aiming at overall economic reforms and sectoral adjustments, to improving institution capacity to plan public expenditure (recurrent and investments), to control and restrict recurrent public expenditure and to coordinate public and private investments.

These orientations clearly indicate the priority given to adjustment policies over development strategies. The aim is to restore as rapidly as possible both the external solvency of the country (stabilizing the current and trade balances) and its internal solvency (reducing the budgetary deficit and public debt). In this perspective, public development assistance, particularly multilateral assistance, will be oriented more and more towards general financing, sectoral or not, on conditions that governments commit themselves to apply certain economic and social policies and specific measures in connection therewith. The approach used by the World Bank for its loans for structural adjustment (or sectoral loans) will be used as a reference by most public assistance sources(8).

Opposing this tendency is the rigid nature of bilateral aid, the methods of which –in particular the project approach– more serve the short-term interest of the public assistance sources, including the non-governmental organizations (sending out of experts and technicians, sale of material). This kind of approach will prevail for a long time as regards financing volume. However, and this may be more important, the adjustment demands will influence the choices made. And the debate on assistance conditionality and the independence of the receiving countries will yield to the overwhelming internal and external economic constraints.

Financing Education in the Framework of Development Assistance

The education share of total financial assistance to development has remained stable between 7 and 8% over the past decade. Taking into account global assistance previsions, prospects for education financing by external assistance remain mediocre. The growth rate of public development assistance for the years to come will not only be low but much slower than the growth of public education expenditure. The external assistance share in the financing of education in developing countries will therefore tend to reduce. Global aid priorities will probably influence the orientation

(8) In 1987, the World Bank oriented 23% of all its loans towards structural adjustment loans and sectoral loans. These loans represented 39% of all loans to sub-Saharan Africa.

given to assistance to education: geographic priorities, stress on elementary education and access of the poorest to education, priority to reforms and sectoral adjustments which will improve the internal efficiency of education, control cost evolution and restore external efficiency (aims, contents, teaching methods, structures, organization of education in relation to productive sectors, traditional sectors and modern sectors of the national economy).

It may appear surprising, but there are no updated statistics on public assistance by type and level of education(9). It would seem, however, that the share of basic and elementary education is more important in multilateral financing than in bilateral assistance. Moreover, the share of elementary and basic education financing from the World Bank and the African Development Bank tends to grow.

The share of education in bilateral assistance is somewhat higher (12%) and does not vary much. One might conclude that there is no hope for a significant increase of the volume of bilateral assistance in the future. The receiving countries should therefore establish better coordination of different bilateral projects, and between bilateral and multilateral assistance. In multilateral financing, with an average of 4% for 1984, the education part remains small (banks and multilateral funds 3,8%, UNDP 3,4% and Unicef 12,3%). However, the feeble size of education in multilateral financing cannot only be explained by the policies of the funding sources which give priority to the so-called productive sectors, education being considered a "residual". It seems to be more a question of the capacity of a receiving country to propose and carry out projects or programmes in education which would fall within the criteria of the funding source. Moreover, the education share of financing granted by banks and funds vaies from one year to the next; this seems to confirm that aid volume also depends on the capacity of a country to propose projects as part of a reform policy and a sectoral adjustment programme. If the lack of such policies and programmes can be an obstacle to more assistance to education, another obstacle w th as serious consequences is institutional inflexibility and insufficient capacity to manage complex projects and adjustment programmes. Therefore, political will to succeed may not be enough.

Seen from the funding sources' point of view, it seems evident that scarcity of resources and the economic situation of receiving countries will lead to a more careful selection of the type of projects and to stricter conditions. More priority will be given to approaches, in which education is not treated as a separate sector, but integrated into macro-economic and macro-social concepts in the framework of structural adjustment. Priorities, today, are given to development of elementary education, quantitative and qualitative (aims, contents); at the higher education level, to reforms tending to regulate enrolment, to adapt training to the needs of the labour market, to improve achievement, to recover part of costs from users and to encourage private sector participation; to adapting education and training to manpower needs, especially at the intermediate level and for modern sectors.

One may have doubts as to how these priorities can fit into the established policies and the choice of projects. The negotiation and decision mechanisms are often too complex, there is too much inflexibility and too many interests involved for the utilization of financing to truly correspond to the objectives fixed jointly by the country, multilateral funds and international organizations. The same is the case with the so often expressed wish to develop elementary education, and yet public assistance to that level has so far been marginal. Some people think that we run the risk of having reforms, which are a condition for the granting of loans, limited to enrolment regulations and cost control and recovery, without giving rise to concepts which could be effective in attracting resources. Another danger is that the unanimous wish to make education more efficient and to reduce costs will make way for a one-dimensional conception of education fitting only economic criteria. There are many examples of multilateral organisms following the concepts and approaches of the World Bank, seeing in education a tool to fit the criteria of spending resources and producing knowledge and know-how. One often gets the impression that little attention is paid to the ideological and moral dimension of education – too elusive for the mechanics of cost-efficiency relations. This is quite a serious problem since funding sources have influence far beyond the size of their contributions.

It is normal for lending organisms to pay attention primarily to the economic validity of projects and to reimbursement of their loans. It is therefore also normal for them to apply criteria and analysis approaches and to insist on adjustment measures and sectoral policies which, in spite of appearances, suit the internal and specific expectations of each lending organism. (These expectations concern for example the choice of education levels to finance, the geographic regions within a coun-

(9) During the period 1974-1980, half of the assistance from the Development Assistance Committee was oriented towards capacity creation for the entire education sector, 14% to vocational training, 12% to higher education and 8% to elementary education.

try, the time schedule and deadlines for preparation and granting of the loans, the role of the private sector versus the State, studies to be undertaken and foreign experts to be selected to carry them out, etc.). And, although it is not sure that this procedure really suits their own expectations, it is understandable that national authorities accept such constraints since their internal financial (budgetary) resources are so limited that the very functioning of education is endangered; their currency needs are serious and urgent, and they do not have sufficient national capacity to analyze, to evaluate and to project, so as to conceive their own programmes and adjustment measures and their own education policies.

The question of conditionality of external financing and the overwhelming influence of some multilateral funding sources on governments' policies and decisions –so often discussed in its political dimension– are in fact due to an imbalance in the countries, between the lenders and their partners/clients, in technical capacity to analyze and propose. In this situation, it would be equally understandable if the funding sources started to find their double role of judge and partner very inconvenient. Judge, when they conceive adjustment programmes and policies for an entire sector, or several sectors, i.e. going far beyond the limits of lending activities; and partner, when they identify, prepare and carry out lending activities which suit their own institutional expectations. Developing national capacity to analyze and propose could turn out to be in the interest of funding sources themselves. In this respect, it seems more than ever necessary for collective experience and knowledge to intrude into the relation between the lender (or donator) an the beneficiary. This calls for proper cooperation and strengthened coordination between financial organisms and the specialized agencies of the United Nations System.

In this respect, it may be desirable for Unesco to be in a position to provide professional support to strengthen national capacity to spend the resources available for education more effectively, to mobilize new internal and external resources and to formulate and carry out new approaches to education.

National capacity to negotiate in view of raising external financial contributions will be strengthened thereby. In the preparatory phase of loans, lending organisms may find it difficult to deal with partners in countries who know what they are talking about and can justify what they want, but the technical and political competence of the partners will then turn out to be beneficial for the execution of projects and adjustment programmes. The obstacles caused by lack of understanding between the two parts will disappear, and there is a far better chance that financing will go more directly and completely to the objectives agreed upon by the two sides.

One might then speak of a much-needed new quality in international cooperation, capable of taking up the challenge of austerity. This new quality is so much more important as one of the main multilateral funding sources is thought to have the intention of considerably increasing the total volume of its loans in the field of education and human resources, and that Unesco, UNICEF and the World Bank are considering the idea of jointly organizing an education development decade (1990-2000).

Prospects

The education sector in nearly all developing countries is facing a tremendous conjunction of social factors, of which the most important are:

- demographic pressure;
- the quantitative results of education (especially at the elementary level, the past rapid growth which generates strong demand for access to the secondary and higher levels);
- the development of modern sectors of national economy (evolving structures and technologies; slowing down of employment growth; integration into international economy);
- the slow evolution, if at all, of contents, structures and functioning mode of the education sector;
- the high proportion of education expenses in recurrent public expenditure;
- the crisis of public finances; particularly the slowing down, if not stagnation, of growth of recurrent budgets (in constant prices).

This conjunction of essential factors is a challenge which has to be taken up by those in charge of education (whether in ministries of education, planning or finance). They have no choice. The same is the case for international organizations, funding sources or not, who help national authorities in their work. The challenge is the same for the two: elaborate and carry out concepts and application measures which will allow the education sector, and each of its sub-sectors, to function and develop when State finances are scarce.

Until now, national authorities are still badly prepared to face these new tasks: to imagine and conceive solutions, to evaluate their feasibility, to define the conditions for their execution and to organize and carry out

the programmes and measures decided upon. But international organizations were hardly in a better position to take up the challenge rapidly and efficiently. Some of them have started to reorient their activities by creating new structures and working methods. In particular, the World Bank has gone further than other UN organizations in this adaptation due to the Bank's autonomy with regard to its budget management and to its daily contact with the reality of problems in developing countries.

It is indispensable to direct education towards reforms to protect the most deprived populations from the consequences of the economic situation, to open the way for more lasting solutions to the problems of education financing and, last but not least, to give back to education its role in development. Four directions have to be explored:

- Favouring a global approach to education
- Restoring the efficiency of the education system
- Planning of diversified education
- Strengthening national capacities

  - to work out new policies, adjustment programmes and application measures, and
  - to manage their execution.

Apply a Global Approach to Education Planning

Education is particularly exposed to the restriction of resources because it constitutes the main source of expenses in the State budget, after national defense, and because economic adjustment policies for this sector go in the direction of reducing the State's role.

In the first place, education planning must be open to the priorities of other sectors and not be geared only to solving education problems, or meeting the pressure of social demand. Education will be perceived positively when it will have proved its capacity to play a positive role in today's economic shifts. To avoid the resulting limitation of public resources for education and to help education to compete with other sectors to obtain resources, education must be placed in a global context. The education sector should be analyzed, its development planned and its adjustment programmes prepared in connection with the other users of public resources and other economic and social sectors. And not, as has been done until now, for the education sector alone, seen independently of the national environment. When isolated, education rarely offers solutions to development problems. Associated with policies of other sectors, it has positive effects on rural development, on health matters, on fertility and on nutrition. These effects and their cause-relationships with other sectors should be identified and evaluated. This brings us back to the indispensable coordination, national and international, for education to become an integral part of the development process and the projects carried out by other sectors. It is easier today to introduce an education or training dimension into development projects carried out in other sectors than trying to raise extra resources for education systems.

Secondly, efforts should be made to avoid a too strictly economic vision which assimilates educational investment with any other form of investment. Although the return rates of educational investment, especially in elementary education, always seem very high in developing countries –higher than those of other sectors– they are insufficient and not convincing enough to justify supplementary financing from the public side. The aim of education is not only to provide qualified manpower or raise productivity; it is also a cognitive process to develop intelligence and help individual acquisition of knowledge, a cultural process which produces a set of values and norms and modifies attitudes towards the environment; it is a social process in that it contributes to communication and influences social relations. Nobody denies that it has influence on national development beyond what can be measured by economic productivity or financial profits.

Restore the efficiency of education systems

There is a passive way of reacting to budgetary constraints. It consists of reducing the sectorial budgets proportionately without modifying the distribution or changing structures. That would be the worst solution in the present state of educational systems; it would only deteriorate the quality of education, cut down the number of pupils educated, increase inequity and prevent reforms. It is therefore necessary, although it seems more difficult and meets more resistance, to move in the direction of a different distribution of resources while giving priority to the more efficient educational processes. In the difficult choices to be made, the notion of cost-efficiency should be seen in a wider sense(10).

(10) Costs are no longer limited to those of the Ministry of Education but should comprise all the resources that can be raised from different sources; efficiency should refer to two criteria: equity (the access to and participation in the education system of groups according to their socio-cultural origin) and results of the system for the labour market and socio-economic needs.

Among the measures to restore education efficiency, priority should be given to correcting the unfair distribution of resources between higher and elementary education. This shifting of resources to reach more equity will however only have effect if reforms are carried out at those levels. With the high unit cost in higher education, there is room to operate there.

Most of the resources thus become available should go to a project of initial education covering not only formal elementary education, but also non-formal education programmes oriented in priority towards populations which have been excluded so far: both children and adults, in particular women. In elementary education, stress should be put on better access, better material conditions and improved quality through better teachers and pedagogical means, in particular school books. When seeing the extra effort made by the State, local communities would be encouraged to participate in such a project of renovation.

The limitation of resources also gives rise to doubts as regards the vocational lines in secondary education. The fact that such technical training is expensive, that it is difficult to reflect technical changes in curricular contents, and especially the difficulty in acquiring new equipment to adapt to the new qualifications of the labour market, make it desirable to reconsider the borderline between the educational and productive systems. Solutions such as alternating education, apprenticeships and internships in private firms should make it possible to shift a greater part of the "technological" cost of such training to employers and thereby adapting it to job profiles. It is probably preferable for public effort to concentrate on an initial, varied general training for all, and then only to encourage specialized training in companies through labour regulations and tax facilities.

Whichever detailed steps are taken to improve the functioning of education systems or teaching and to limit or reduce costs –and although effects thereof can be obtained in the relatively short period of some years– such measures cannot be expected to provide a lasting solution to the problems of educational financing. Long-term solutions are to be found in the more difficult structural reforms.

Planning Diversified Education

The adjustment problem leads to concentrating efforts to find solutions for the financing of the public sector only. Moreover, information at the disposal of the planner generally concerns the formal school system and basic education. If resources are to be diversified locally, it is necessary to see education in a broader way. Concretely, one would then have to envisage: cost-recovery from families, employer participation, balance between initial, vocational and in-service training, which resources to assign to basic education, etc.

If the amount of resources available for education is to increase, the State must include in its overall planning so far marginal forms of education. Non-formal education can be a complement if it is coordinated with the development of the shool system, and if links exists between formal and non-formal education. Here, it would be necessary to do away with State monopoly in educational management with its rigid administrative and institutional rules to make the State play a role of incitement and encouragement.

From a budget point of view, nearly all credits today are assigned in advance to current management of the public educational system. The State must dispose of some credits to be able to intervene, through subcontracting, to support case initiatives taken outside the public system. In this way, public financing could have a "lever" effect: internally by attracting outside participation (private concerns and organisms, local groups and communities) and, externally, increasing its capacity to attract international financing of projects.

When educational resources (financial and human) and educational technologies are diversified, the monopoly of the teaching profession (generally public) on transmission of knowledge will be questioned. Failure to apply new teaching methods and difficulty in creating interaction between formal and non-formal programmes often stem from the status of the teaching staff. By modifying recruitment criteria, the State should encourage mobility, openness and flexibility in teaching staff. This would become so much more necessary as the State would no longer be the only employer of teaching staff.

Setting up systems which allow individual mobility from one training branch to another, as it exists in out-of-school systems, is necessary to make the educational system work well. The State has an important role to play to work out ways to make passage from branch to branch possible through equivalences and certification of training and vocational aptitudes acquired.

Finally, encouragement should be given to a more decentralized, more flexible management in order to stimulate such a diversified education system. A series of conditions are needed in this respect: delegating part of the State's credits through negotiation or subcontracting; training staff locally or inside the institution to give them the qualifications and means to cope with such management; paying more attention to subsequent cost control on

the basis of objectives, and establishing better tools for qualitative evaluation.

Strengthening National Capacities to Prepare and Manage Adjustment Programmes

Methods and techniques used for analysis, evaluation and projection are generally the same everywhere, but their use in a particular country demands specific tools for the austerity problems in that country. The interconnection of problems, their size (qualitative, quantitative, political, economic and social), their interrelationship and the relations between education and other socio-economic sectors are not the same in all countries. On the contrary, they are specific to the national context of each country. Consequently, the approaches and tools used for analysis, evaluation and projection, vary as well. A successful approach in one country may not automatically be useful in another. The so-called "general" approaches, or "solutions applicable everywhere" –needing only slight adapting– often turn out to be false promises.

To convince a ministry of finance to decide in favour of the education sector (and against other sectors), a ministry of education will obtain little by reasoning in general terms of international comparison(11) or conviction(12). But it has a chance of convincing if it can produce proofs that.

- it utilizes the huge means put at its disposal economically, efficiently and rigorously, only to educate(13);
- that it has exhausted all other income sources within reach(14);
- that the new activities for which it requests budgetary resources:
  - are indispensable to reach objectives, and that there are no other ongoing activities which could be used.
  - entail only a minimum of recurrent expenses.
  - cannot be financed through reallocation of the sector's resources.
  - will not cause expenses in other parts of the sector.
  - cannot be delayed.
  - etc.

For each of these points, the ministry of education has to prove implications (advantages, disadvantages, costs, results) for directly concerned activities, for other activities in the sector, and also for other sectors. International money-lending organisms ask the same questions and are convinced by the same answers. All these questions are part of an exclusively national context, and the answers can only be reached with the help of information and statistics specific to that country. With this approach, the education sector may again have credibility in its role in development and towards internal and external, public and private funding sources.

An organization like Unesco, with appropriate structures and working methods, can play an important role in this task. Unesco could provide countries with teams of professionally competent staff with long experience in the field of education policies and national decision-making processes. Such teams could assist national services (education, planning and finance ministries, etc.) in undertaking studies of the education sector to analyze problems, find solutions and evaluate their implications and feasibility (seen from an educational, financial, organizational and managerial point of view), set up an adjustment programme, identify possibilities and conditions for participation of external funding sources. This search for solutions and evaluation of their implications and feasibility are the keystone and the most complicated task of sectorial studies, for which national authorities would appreciate receiving not only competent, but also disinterested assistance. The capacity of countries to negotiate with funding sources would be strengthened thereby.

To undertake sectorial studies and carry out adjustment programmes, ministries need quantified and analytical data on the functioning of the sectors and its relations with other sectors. Such data go beyond traditional statistics. New education statistics will be needed in the future to provide information on the functioning of the system in all its aspects. Collecting, treating and storing statistical data have to be organized in such a way as to make access to information possible at any time and for any purpose: utilization and current management of staff and financial means, student flows, internal and external efficiency, relations with the environment (demography), local economy, evaluation of ongoing activities and of the implications of suggested new activities and measures, elaboration of budgets, action programmes and plans(15).

(11) "... neighbouring countries accept a higher budget..."

(12) "... education is crucial for development..."

(13) This is not the case when up to 15% of teacher salaries go to staff who do not teach.

(14) Collecting at the local and communal level, from private and public beneficiaries of educational provision.

(15) The traditional concept of a statistical yearbook containing data from often incompatible sources, with only few financial and cost data, used mainly to statistic ends (activity reports, official speeches and display), is no longer sufficient.

Education planning itself has to catch up with the problems caused by austerity. With only traditional planning behind them, national education authorities find themselves disarmed when facing austerity and the need to operate structural adjustments. Today's planning should be dynamic, flexible and capable of answering a large variety of demands: budget preparation, *ex-post* and *ex-ante* evaluation, setting up of action programmes, all this over and above the task of traditional planning. *Ex-ante* evaluation is the most important of the new tasks assigned to education planning. It consists in quantitative evaluation and implication measuring of proposed activities (adjustment, for example): their impact on the entire education sector (or sub-sector) has to be quantified: school enrolment rates, pupil flows, internal efficiency, number of graduates, external efficiency, teachers (numbers, career, training), school materials, salaries, unit costs, budgetary provisions needed and their financing.

Unesco's Office of Statistics has created the system of computerized statistics which can help national statistical and planning services in their new tasks of managing the education sector and in the preparation and execution of adjustment programmes. With the same purpose, Unesco (Educational Financing Division, Education Sector) has developed a computerized approach to sectoral analysis, to projection and evaluation of implications. Already used by education and planning ministries in several countries, this approach is based on models made out specifically for each country, thus fully taking into account its particularities. Using a Personal Computer (or compatible) the system is easy to use even for people with no particular knowledge of computers and provides almost instantaneous answers to a large scale of questions on management, evaluation and planning, as well as analyses of resources and future implications of suggested measures and activities. The approach is conceived to be of daily use to educational planning services. It has already proved its usefulness as a method for dialogue, by enabling officials in different services of a ministry or in other ministries concerned with education, to test the feasibility of their ideas, proposals and policies, and their implications. It has resulted in ministry of education officials being able to update their knowledge of their country's education system, but it has also, and in some cases for the first time, allowed planning and finance ministries to acquire good knowledge of the particular nature of the education system and its very complex functioning. These ministries who, to a large extent, decide on education's fate in government budgets, have thus been able to examine the requests of the sector in a more knowledgeable way. This approach to analysis and dialogue could be extremely useful to national authorities who wish to create capacity to analyze and work out adjustment programmes and new education policies in a context of financial austerity.

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The problem of education development in a period of serious and lasting budgetary constraints has been the theme of some hundred articles and works published since the beginning of the eighties, in English or in French. A list of these articles was made out by Unesco's Education Sector. It is clearly shown by these texts that there was particular interest in the theme between 1983 and 1986, based on the developments of the latter part of the seventies and the beginning of the eighties.

The following list is a selection of titles dealing with the essential parts of the problem; they may provide more information and ideas to those who may wish to widen their knowledge of the problem.

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- **Le Vol. XIII comprend les articles suivants:**
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  - *Hans Reiff*, "La coopération internationale avec les pays les moins avancés".
  - *Janos Timar*, "La nouvelle crise de l'enseignement dans les pays en développement".
- **Le Vol. XVI comprend les articles suivants:**
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WORLD CONFERENCE ON EDUCATION FOR ALL

Accomplishment of the learning basic needs

The four organizations sponsoring the Conference –the World Bank, Unicef, Unesco and UNDP– have established a regional inter-organization commission to prepare, promote and organize the World Conference on Education for All, to take place in Bangkok, Thailand, in 1990. Under the direction of the sponsoring organizations, this commission is now organizing regional consultations to receive national and regional contributions.

Two regional preparatory conferences will be held in the framework of the Major Project in the Field of Education in Latin America and the Caribbean. One, for Spanish-speaking countries, is to take place in Quito, Ecuador, from 29 November to 1 December 1989; another will be held for the English-speaking countries of the Caribbean, at a time and place to be decided soon.

The organization of activities at the regional level has been entrusted to an inter-agency commission composed of TACRO-Unicef, OREALC-Unesco and representatives of the World Bank and UNDP. Regional NGOs, such as REDUC and CEAAL, are also represented in the commission.

The Quito conference is organized by a committee composed of representatives of the sponsoring agencies and the Government of Ecuador.

Prior to the regional preparatory conferences in Quito and in the Caribbean, national debates will be encouraged on the objectives and documents of the World Conference.

The purpose of the conference is to bring together world leaders, government delegations from all countries, international and non-governmental organizations, and eminent educators, with the aim of forging a global commitment to providing Education For All (EFA) good quality primary schooling for all children around the world, and essential knowledge and skills for adults to cope with the demands of the modern world.

More specifically, the objectives of the world conference are:

- To create a new awareness, among governments, donor agencies and the non-governmental and international communities, of the urgency of achieving EFA;
- To produce a broad consensus on a feasible and affordable concept of EFA, as a basis for developing national plans and implementation strategies;
- To create a commitment, among countries, to EFA, and to focus on this priority area of education;
- To define a framework for the development of realistic and functional international plan(s) of action to achieve EFA; and
- To utilize the conference as a forum for mobilizing worldwide support and resources necessary for the achievement of EFA.

Scope of the Conference

The conference will advocate a two-channel approach to meeting the basic learning needs for all:

- Good quality primary education for all school-age children, based on learning achievement rather than years of schooling, within the framework of the following principles:

- Primary schooling can take the form of different modes of delivery –formal schools, traditional centers of learning, community centers, etc.– but should be unitary in its outcome of standards and potential for further education. (No dual or dead-end systems.)
- Certain programs equivalent to primary schooling may be provided to out-of-school youth providing second chance learning for those who missed formal schooling earlier.
- Primary schooling is a minimum foundation on which countries should gradually and systematically build networks of further education and training.
- Basic knowledge and skills that allow adults to improve their quality of life and their opportunities to participate in and benefit from social and economic development. Such education, recognizing the universal aspirations for literacy, will take many forms of literacy training, skill training, and specialized packages of knowledge on topics such as health, nutrition, safe water, child rearing, etc.

Progress towards achieving basic learning goals will in many countries require mobilizing additional public and private resources. Efficiency and equity considerations suggest that primary education should have a priority claim on public resources. In the present constrained resource environment, community and other private resources and external aid will have to be mobilized to complement public funds in order to fund adequately a good quality primary education system, that reaches out to all children.

Similarly, public funding for adult education will continue to be limited. But there is a significant scope for mobilizing mon-governmental resources –national and international– to support adult education and training. The active involvement of communities and NGOs has been demonstrated to be particularly effective in implementing adult education programs.

Targets for All by 2000

The Conference will advocate that countries consider the following planning targets to operationalize the concept "for all" by the year 2000:

- Primary education: Each country will strive to ensure that at least 80% of all 14-year-old boys and girls attain a common level of learning achievement for primary education, set by the respective national authorities.
- Adult education: Access to basic skills and knowledge for all.
- Literacy: Massive reduction of illiteracy with targets to be set by each country and prioritized by age and sex.

Conference Documentacion and Presentations

Three main documents will be placed before the conference:

- World Charter on Education For All;
- Framework for Worldwide Action to achieve the goals specified in the Charter;
- Basic Working Document (for background and information); and

In addition, there will be three types of presentations:

- Illustrative country cases that document, by multimedia when feasible, country experiences in meeting basic learning needs of children and/or adults;
- Selected country Plans of Action for the 1990s that present a diagnosis of the country's problems in meeting basic needs and its plans and implementation strategies for rapidly extending the coverage and quality of basic educational services; and
- Synthesis of research and experience concerning specific crucial topics related to the theme of the conference. Some of these topics are the subject of special studies conducted for the Conference during the preparatory year.

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PATTERNS IN CARIBBEAN SCIENCE-RELATED CULTURAL BELIEFS WHICH MAY AFFECT LEARNING IN SCHOOL SCIENCE

June George y Joyce Glasgow (*)

The theme 'Culture, Language and Thinking' engenders in one's mind immediately the notion of meaning. In the context of science education, this translates readily into meanings about science that are shared by those of common cultural background. Research into the meanings about science that, children bring with them to the classroom has grown immensely over the past decade. The particular interest of the authors has been the ways in which cultural background may be influencing these meanings in a Caribbean setting.

As a pre-requisite to any consideration of the topic of this article, it is necessary to clarify the meanings of the terms 'science' and 'cultural beliefs' as used in this context.

Science as used here, refers to conventional Western science, on which school science in the Caribbean is based. The cultural beliefs addressed refer to a sub-set of the full range which exists in the society, and include only those social customs and beliefs that deal with the same content areas that are dealt with in conventional science, but which sometimes offer different explanations to those offered in conventional science (George, 1986).

This group of beliefs is being collectively termed Street Science. Those sayings which deal purely with luck, omens, etc., are not being explored.

A sample of 236 street science beliefs and sayings has been documented by the authors from a variety of sources. These have been chiefly oral, because of the very nature of the task: small farmers, elderly citizens, medical personnel, graduate researchers in the areas of bush medicines and creole and oral traditions, as well as school children and their parents were consulted. Additionally, source documents from the Caribbean Food and Nutrition Institute (CFNI) and the Scientific Research Council of Jamaica (SRC) were used. Of the total sample which came from Jamaica and Trinidad and Tobago, approximately one-third of the beliefs are common to both territories. Many others, though using different words, illustrate similar principles. It is realized that the sample is not exhaustive –no claims are made for this. Nevertheless, the patterns revealed by its analysis are instructive.

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Patterns in street science

Content Patterns

Content emphases in the sample were in the areas of nutrition, health, human reproduction and child care, plant nutrition and growth, and the effects of the moon. The personal nature of these emphases is not surprising, since the beliefs represent the survival code of a people. Table 1 gives some examples of beliefs/sayings in these content areas, and indicates the related topics in school science.

Within the various content areas, there is a gradation of agreement between street science concepts and principles, and those of conventional science, along a continuum which runs from complete similarity of explanations to complete difference. Based on this, four groups of statements may be distinguished (after George 1986).

Category 1 Those following conventional science principles, e.g.

'A mixture of lime juice and salt will remove rust stains from cloth'.

Category 2. Those in which a conventional science explanation seems likely, but is not yet available e.g. 'Vervine (Stachytarpheta jamaicensis) is good for worms' (This plant is known to have pharmacological properties, but appropriate usage has not been verified).

Category 3. Those presenting a distorted view of conventional science e.g. 'Eating sweet foods causes diabetes'.

Category 4. Those for which there is no conventional science evidence to support the claim e.g. 'If you want your hair to grow long, cut it when the moon is full'.

Philosophical patterns

These are based on analysis of those beliefs/sayings (84 per cent of the sample) which either partially agree with, or offer different explanations to, conventional science. For those statements which agree completely with conventional science (Category 1), one would expect that any inherent characteristics would be similar. Category 2 statements have deliberately been omitted from this exploration because of insufficient information as to their relationship to conventional science principles.

Four main philosophical trends have emerged from the analysis.

- The whole system of cause and effect is simple, immediate, direct and absolute. No physical and/or physiological processes intervene between the two.
  This is the most commonly observed trend –as in 'eating acid fruits reduces a man's virility', or 'drinking nightingale soup will make a baby talk quickly', or 'sleeping with moonlight on one's face causes it to become swollen'.
- There is a readiness to transfer experiences and explanations across contexts, as in the belief that 'eating ochroes will help a pregnant to have an easy delivery'. Here the physical nature of ochroes is being directly transferred to its postulated action as a lubricant in the birth process. This transfer may also extend to genetic effects. For example, street science advises that a hungry man should not plant yams if he does, the new tubers produced will be hollow. The transfer here seems to be between the 'hollowness' of the hungry planter, and the form of the yam.
- Generalisations are made readily and often from limited evidence. For example, dew and rain are both forms of water. Rain falls, therefore dew also 'falls' –hence the admonition to cover babies' heads outdoors after nightfall to prevent dew 'falling' on them and making them ill. Other beliefs state that eating certain combinations of foods e.g. ripe bananas and butter, or cornmeal and rum will result in food poisoning or death. These statements do not allow for the intervention of any other variables which may have contributed to illness in those cases where this occurred after these foods were eaten –the statements are given as broad generalisations.
- Special powers and/or characteristics are attributed to particular conditions/objects. These refer specifically to 'femaleness' in humans, and to the moon. The menstruating female must not bake cakes, because 'they will not rise', but if a pregnant woman plants a pumpkin vine, 'it will bear well'. Cutting the hair when the moon is full will 'make it grow', and 'anything planted at full moon grows better'.
  (See George and Glasgow, 1987)

Street science patterns and school science

Street science and school (conventional) science are similar in that both have their origins in man's attempts to come to grips with and explain natural phenomena. They are also similar in that the results of these attempts are unique to the system, but are public knowledge, shared within communities and societies. Differences in the philosophical bases of the two modes of thought appear to arise out of the absolute nature of street science, as distinct from the tentative nature of school science. The direct cause/effect syndrome and

Table 1
SOME STREET SCIENCE BELIEFS AND THE RELATED SCHOOL SCIENCE TOPICS

Content Area	Beliefs/Sayings	Related School/ Science Topics
Food and Nutrition Health	Drinking much milk makes you intelligent. Bananas supply iron. Eating carrots gives you good eyesight. Drinking 'pacro' water increases a man's virility. Eating too many sweet foods gives diabetes. Eating too many raisins gives a bad heart. Black pepper causes gall and kidney stones.	Nutrients, their source and functions. Diet related diseases.
Human reproduction and Child Care	A pregnant woman should not look on anything deformed, and either feel sorry for or laugh at it or her baby will be born with the deformity. If a pregnant woman eats plenty of ochroes she will have her baby easily. Too much ice gives the mother a 'miggling' pain and delays the passing of the placenta. Babies' heads must be covered outdoors or they will catch cold. If a baby has a chest cold, give it a little purgative to pass out the cold. Babies who eat the same food as adults will get big bellies. Peas soup will give babies sour stomach.	Heredity Parturition The Common Cold. Infant diets
Plant Nutrition and growth	Pumpkin planted by a pregnant woman will bear well. Fertilised fruits and vegetables are big and so-so (ie. not pleasant to eat)	Productivity in plants. Mineral nutrition in plants.
Effects of the moon	Anything planted at the full moon will bear better. If you want your hair to grow long, cut it at the full moon. Do not cut bamboos when the moon is shining, or insects will eat them.	Productivity in plants. Growth of hair follicles. Life cycle of insects.

the readiness to generalise in street science are expressions of this authoritarianism of approach. As well, the willingness to generalise on the basis of limited evidence, to transfer experiences across contexts and to ascribe special powers to certain conditions and objects, represents an incomplete recognition of variables and of the role of experimentation generally. This is at variance with the ideas of empiricism and replicability in school science.

With regard to content patterns in street science, the gradation of agreement among the concepts and principles in the two systems has already been pointed out. A further dimension is that among those street science beliefs which offer different explanations to those in school science (Category 4 statements), may be distinguished two groups:

- where the explanations do not suggest any practices disadvantageous to the individual or the socity. For example, the eating of ochroes will do the pregnant mother no harm (and should in fact enhance the supply of vitamins and minerals in her diet) although it cannot directly make delivery easier.
- where the explanations do encourage practices which may do harm. For example, the belief that 'babies who eat the same food as adults will get big bellies' contributes to malnutrition in Caribbean children in the weaning period –that pe-

riod during which a baby's diet is being changed from milk to family foods (1).

Both the similarities and the differences in the philosophical bases and content patterns of street science and school science have implications for the teaching/learning situation in the classroom.

Some implications for the classroom

The children

The relationship between children's prior experiences and learning in science is a current concern of science education research worldwide. One viewpoint states that children bring their pre-existing ideas and beliefs about the natural world into the science classroom, and use the existing concepts as a springboard for an active process of constructing new meanings. (Driver and Oldham, 1986). If one accepts this viewpoint, then it seems reasonable to assume that street science which represents a body of culture-bound prior experiences should impact on the learning of school science.

The literature reporting investigations into this issue is sparse, but what there is appears to suggest that the effect depends on whether or not the cultural beliefs and customs coincide with the concepts in school science. For example, Ehindero (1982) in the Nigerian context, found that adolescent Nigerians living a nomadic lifestyle displayed a higher level of spatial skills that their non-nomadic counterparts. He therefore suggests that in school 'efforts be directed at reinforcing those reasoning strategies which each group's ecocultural framework has aided in developing' (p. 456). The view here seems to be that co-incidence between background cultural influences and school science is likely to enhance learning of the latter –a view that receives some support from developmental psychology (Lovell, 1980).

The opposite effect when such co-incidence is absent is suggested by the results of another Nigerian study. Jegede and Okebukola (1987) investigated the relationship between socio-cultural factors in science class-rooms and anxiety in mixed groups of Nigerian students (N=707). They found that 'anxiety state rises concomitantly with the socio-cultural effects of authoritarianism, goal structure, African worldview and societal expectations' (p. 7). Put another way, an authoritarian atmosphere at home or at school (which is in contrast to the tentativeness advocated by school science), and a commitment to African traditions (most of which offer different explanations to school science), seemed to engender a high level of anxiety in science students. Such a high level of anxiety is likely to make learning more difficult.

Indeed, where street science offers explanations that differ from those in school science, one can postulate that one of two processes is likely to take place. Either the two systems of thought will be held as discrete domains, one for 'school' and the other for 'home', or there might be a 'blending' of the two in children's minds, as they try to understand the 'new', with the 'old' as the starting point. The difficulty with the blending from the teacher's point of view is that it will be different for each child.

Children may also find it difficult to appreciate the necessity for repetition of empirical evidence; the notion of interacting variables; and the tentativeness of school science, where they are accustomed to a system dealing with similar content, but promoting absolute ideas of cause and effect, and easy generalisations.

The teachers

It should be remembered that teachers are products of the society, and have also had the duality of exposure to 'science'. No provision is made in their training for an examination of the two systems so that they are even aware that they co-exist as structured modes of thought.

Indeed, more than a first level examination is needed. Teachers need to understand the two systems, so that they can use this understanding to make school science more relevant to children's experiences, and therefore more meaningful for them.

It is important, for example, for children to realize that when they are told to put a little oil in the pot to prevent 'boiling over', they are utilising conventional science principles dealing with surface tension. This agreement in the two systems serves for reinforcement.

At the same time, an awareness of the philosophical patterns in street science should help teachers to 'bridge the gap' where there are differences in the postulates of the two modes of thought. For example, in many of the beliefs in which there is partial agreement between street science and school science, an intermediary link from school science can be injected into the street science cause/effect statement, thus the latter could be used as starting points for some school science concepts. Street science states, for example, that drinking much milk, or eating the brain of fish

(1) Personal communication, Mrs. Versada Campbell, Nutrition Educator, Caribbean Food and Nutrition Institute, Kingston, Jamaica.

will make a baby more intelligent. Thus there is a recognition of the value of certain foods. The interpretation by school science would be that these are protein foods, essential for the proper development of all cells, including the nerve cells of the brain. Moreover, before the fish protein can benefit the body, it has to be digested and assimilated into the body. The protein and digestion components are missing from street science, but the street science can be used as an introduction to these topics, and so bridge the gap between street science and school science.

Where explanations differ completely, there might be need for research if this is possible. In any event, teachers attuned to street science and its possible effect on school science, would realize that different coping strategies would be needed to deal with different categories of street science. They would also be better able to predict what concepts might be expected to 'surface' in the classroom in a particular context, and to identify school science concepts which might prove difficult for children to understand.

The need for research

What is certain is that there is need for continuing research in this area. Further documentation and analysis of Caribbean street science, including its process skills and attitudes, are necessary. The fact that school leaving regional examinations in science share common syllabuses makes this very important. Extensive observation of students in the classroom also needs to be undertaken, to establish the interaction between street science and school science in the teaching/learning situation, and inform coping strategies. Finally, the implications for teacher training of the fact that teachers share common cultural beliefs with the children need to be examined and addressed.

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OREALC ACTIVITIES

REGIONAL NETWORK FOR TRAINING OF PERSONNEL AND SPECIFIC SUPPORT IN LITERACY AND ADULT EDUCATION PROGRAMMES –REDALF–

International Literacy Year

In connection with ILY, OREALC has carried out the following activities between May and August 1989:

- An action plan for ILY was established following the lines of the proposals adopted by the III Regional Technical Meeting of REDALF (Cali, March 1989).
- A standing team was set up to take charge of activities related to ILY; it is coordinated by the Regional Specialist in Adult Education.
- A round table on "Illiteracy and Literacy Action" was organized in the framework of the PROMEDLAC III meeting (Guatemala, June 1989).
- On the background of the PROMEDLAC Recommendation on the Second Regional Action Plan of the Major Project (Guatemala, 1980) –which urges "to take advantage of International Literacy Year to reinforce literacy action during the period 1990-1995", the need was stated to define goals for medium-term literacy action which would contribute to an equitable development and receive support from the entire society; the Recommendation moreover advocated improvement of the quality of literacy programmes by adapting them to the cultural characteristics of the communities concerned.
- Development of joint actions with non-governmental organizations:
  - OREALC/CEAAL press conference to make public opinion aware of ILY (Santiago, Chile, May 1989).
  - Participation in the round table on illiteracy organized by TAC, PIIE and CIDE, Santiago, Chile.
  - Support for the creation of a NGO standing committee in Ecuador which, inter alia, would serve as counterpart for the VI interregional consultation of NGOs working in literacy and adult education (Quito, December 1989).
- A document on preparatory technical assistance to the Project to Improve Basic Adult Education was prepared and presented to the Spanish Government, as part of ILY activities and with a view to concert extra-budgetary financing sources.
- Work is continued on the evaluation of national literacy experiences in the different countries of the region (see separate note).

Second Latin American Congress on Reading-Writing

The Second Latin American Congress on Reading-Writing took place in Buenos Aires from 4 to 7 July 1989, organized by the Latin American Committee of the International Reading Association. It was attended by 900 people, mainly primary school teachers from Argentina, Brazil, Chile, Colombia, Costa Rica, Peru, Spain, Uruguay and Venezuela and other special participants. The regional specialist in adult education from OREALC/Unesco presented a study on the link between literacy, illiteracy and cultural environments.

The purpose of the seminar was to analyze the relationship between teaching of reading-writing skills and literacy, and the socio-cultural dimension of literacy action.

Particularly significant, not only because of the number of participants but also because of the level of the debate, the meeting permitted an exchange of views on possible lines of research and action, and on proposals for literacy action based on work with popular sectors and in the field of special education.

Information Activities (Peru)

The Peruvian NGO "Grouping for Adult Education and Social Promotion" devoted most of the second issue of its bulletin Jornada (may, 1989) to spread knowlegde of the Major Project in the Field of Education and of the proclaiming of International Literacy Year. It also provides information on the Regional Seminar on policies and strategies to overcome illiteracy (1990-2000), which is to take place in Managua in November 1989, under OREALC auspices.

These activities are part of an alternative literacy project undertaken by the above-mentioned institution.

Activities of Unesco's Subregional Office in Kingston (Jamaica)

As part of ILY preparatory activities, and under Unesco auspices, a Community Information Service was organized in Sta. Ana in May 1989, coordinated by the Library of Jamaica. This pilot project proposes information 'packages' to cover community needs as regards information on educational, labour, legal, emergency and security services and opportunities.

The project proposing, along with its information activities, cultural programmes such as exhibitions, conferences and discussion panels.

Regular Courses for Adult Educators (Uruguay)

The Primary Education Board of the Ministry of Education of Uruguay –member of REDALF– is organizing in-service teacher training in adult education during this year: on the one hand, regular courses in adult education for primary school teachers consisting of a programme of 19 hours of courses in theory and practice of language and communication, methodology, techniques of intellectual work, psychology of learning in the adult, adult education and teaching practice. The courses take place all through the year.

Moreover, between April and September this year, other regular courses for educators of adults and others, are taking place for teachers of the Secondary Education Board and the Technical-Vocational Training Board; they cover a programme of 27 hours with the same subject matters as the courses for primary school teachers.

Line of Action: Training and Technical Assistance

Sub-line of Action: Regional Meeting

Field of Action: Literacy

Regional Seminar on Policies and Strategies to Overcome Illiteracy

Between May and August, preparatory activities were carried out for this regional seminar, which will take place in Managua, Nicaragua, from 23 November to 1 December 1989. The following activities can be mentioned: –The letter of agreement was signed by the organizing institutions (OREALC, Ministry of Education of Nicaragua); –a general meeting plan was set up, the letter of invitation was dispatched, the participating institutions selected, and the contents and documents to be presented to the meeting were decided upon; –a preparatory workshop was held in Porlamar, Venezuela, from 29 May to 2 June, in the framework of REDALF. Participated two specialists from CREFAL, two representatives of OREALC and three of national networks (Colombia, Costa Rica and Nicaragua), who together outlined the Training Plan for Literacy Teachers and Adult Educators and decided on the programme, working methods and contents of the Managua seminar. Ministry of Education representatives from 22 countries have been invited to this important meeting: Argentina, Bolivia, Brazil, Colombia, Costa Rica, Dominica, Dominican Republic, Ecuador, El Salvador, Guatemala, Grenada, Haiti, Honduras, Jamaica, Mexico, Netherlands Antilles, Nicaragua, Panama, Peru, St. Lucia, St. Vincent and the Grenadines.

Line of Action: Training and Technical Assistance

Sub-line of Action: Regional Meeting

Field of Action: Adult Education

Interregional Meeting of NGOs on Literacy and Adult Education

Since April this year, OREALC and Unesco, Paris, have been preparing this interregional meeting which,

once more, will examine the role of non-governmental organizations in the field of literacy and adult education.

The following preparatory activities have been completed: a general meeting plan has been worked out, agreements signed between the organizing institutions and participants selected. Furthermore, in order to back up the meeting, a standing commission has been set up in Ecuador composed of CEDIME, MACAC, IRFEYAL, DINEPP and CEAAL.

In the framework of International Literacy Year, this meeting of NGOs from several continents is intended as a sectoral consultation in literacy and adult education to supplement the permanent mechanisms of communication and cooperation, which Unesco has established with non-governmental organizations. Representatives of international organizations will moreover attend the meeting as observers; this should allow NGOs to present development projects, which fall within the scope of the meeting, for approval and financing.

Line of Action: Training and Technical Assistance

Sub-line of Action: Technical Assistance

Field of Action: Bilingual Education

Technical Assistance for the Use of Curriculum Guides in Indigenous Regions of Guatemala

A working team composed of two technicians from SIMAC (Guatemala), a consultant and two OREALC specialists, worked at OREALC headquarters for two weeks in July to make recommendations concerning the use of curriculum guides in indigenous areas of Guatemala.

The result was a document on pedagogical methods to include linguistic and cultural components in the teaching process. The purpose was to analyze the relationship between language and education, in order to orient bilingual teachers and give them new tools to renew and adapt more flexible curricula to the cultural characteristics of the children.

Line of Action: Training and Technical Assistance

Field of Action: Bilingual Education

Workshop on Integration of Indigenous Cultural Contents into School Curricula, (Guatemala, 24 April - 5 May)

The Central Unit of SIMAC (System for professional staff qualification and curriculum adaptation) asked Unesco/OREALC to give advice on educational provison to indigenous populations, as part of the reshaping and decentralization process SIMAC is implementing. In response thereto, OREALC organized a training seminar with the following objectives:

- to train SIMAC technicians and curriculum and linguistic specialists from PRONEBI in how to incorporate indigenous cultural contents into primary school programmes;
- to elaborate teaching modules with such indigenous cultural contents.

The workshop was attended by 30 participants: 20 from SIMAC and 10 from PRONEBI, and coordination was assured by the two OREALC associate experts who work in the field of bilingual education.

The workshop was organized around four themes: language and education, native languages in bilingual education in Guatemala, culture and education, and intercultural curricula.

The workshop allowed SIMAC Central Unit staff to become familiar with basic concepts of intercultural bilingual education. Moreover, a programme of priority activities was set up, including elaboration of complementary curriculum guides for pre-primary and the two first grades of primary education, methodological support manuals for the teaching of Spanish as a second language, incorporation of indigenous cultural features in the education process and, finally, mother tongue and education.

The complementary curriculum guides were worked out at OREALC headquarters by a joint team composed of teachers from Guatemala, an OREALC consultant and two OREALC specialists.

Line of Action: Training and Technical Assistance

Sub-line of Action: Regional Meeting

Field of Action: Education and Women

Sub-regional Workshop on Programmes of Civics Education and Participation of Rural Women in the Socio-Economic and Cultural Life of the Community

Between May and August, preparatory activities were carried out for this sub-regional workshop, which is scheduled to take place in Cochabamba, Bolivia, from 2 to 6 October, under the joint auspices of OREALC and Unicef. Among them are: The letter of agreement between the sponsoring organizations was signed; a general outline

was made for the national reports to be presented to the meeting and a discussion guide elaborated to organize group work during the workshop; participating institutions were selected and the said documentation sent out.

Among the institutions invited to attend the workshop are: representatives for governmental and non-governmental organizations who run programmes of rural women from Argentina (Provincial Council of Women, Prov. of Buenos Aires, Institute for Human Promotion-INDES); Bolivia –not yet decided; Colombia (the NGO ASOMUC and a governmental body to be decided); Ecuador (CEDIME and CEPP); Peru ('Perú Mujer', CENDIPP, Literacy Direction, Ministry of Education); Venezuela (Management Programme for the Working Woman under the Ministry of the Family, and the Training Institute for Rural Girls –a NGO from Barquisimeto).

Line of Action: Research/ Studies/Evaluation/ Development Projects

Sub-line of Action: Evaluation

Field of Action: Literacy/ International Literacy Year

Evaluation of National Literacy Experiences

During the period May to August 1989, work was continued on the evaluation of national literacy experiences. Among others, the following activities were carried out: –preparation of a national seminar-workshop to systematize the results of evaluation in Colombia, undertaken by the Ministry of National Education under OREALC auspices. The meeting will take place in October and is to prepare a document to be presented to the regional seminar in Managua;

- technical assistance provided by CARCAE to the evaluation exercise in Dominica, Grenada, the Netherlands Antilles, St. Lucia and St. Vincent and the Grenadines; here again, a document will be prepared for discussion at the seminar;
- technical assistance provided by a consultant to evaluation activities in Venezuela (June 1989);
- similar help provided by CREFAL to different countries in the region (Ecuador, Guatemala, Honduras and Panama);
- joint CREFAL-CARCAE coordination to organize a workshop –probably to be held in Jamaica– on evaluation results in the English-speaking Caribbean, with university collaboration from five countries;
- technical assistance provided by a consultant to support the evaluation process in the Haitian Ministry of Education and the Secretariat for Education, Fine Arts and Cults of the Dominican Republic. All these efforts will culminate in the Regional Seminar on Policies and Strategies to Overcome Illiteracy (Managua, Nicaragua, November 1989).

Line of Action: Research/ Studies/Evaluation/ Development Projects

Sub-line of Action: Development Projects

Field of Action: Literacy

Literacy Project Using Audiovisual Means (Unesco/ AGFUND/Peru)

In Peru, this literacy project has accomplished important work, in particular producing written texts and audiovisual materials in Spanish and Quechua (for monolingual adults) and applying them, on an experimental basis, in different regions of the country.

Special mention should be made, for example, of videos produced by the project and transmitted by a state television channel with booklets prepared to support the television programmes, in order to strengthen basic adult education, and of the book "Linguistics and Grammar Runasimi-Chanka".

The programmes examine serious community problems through interviews with people involved and present simple methods to solve problems in everyday life and in the world of production.

Line of Action: Research/ Studies/Evaluation/ Development Projects

Sub-line of Action: Research

Field of Action: Adult Education

Regional Research into Basic Adult Education

Regional research into basic education of adults continued in the period May-August 1989. In May, Venezuela joined the twelve countries who have already started research. Under OIS and OREALC auspices, a consultant coordinated research work jointly with the General Direction for Adult Education of the Ministry of Education of Venezuela.

Furthermore, CREFAL, who is responsible for this research project in Central America and Mexico, is organizing a sub-regional workshop in Guatemala in September-October, to present the results of national studies

in the sub-region. It will be attended by adult education authorities of participating countries, CREFAL specialists and an OREALC consultant. In this way, conditions are there for the finalization, during the last quarter (of 1989), of the comparative regional report based on the national studies.

Line of Action: Research/ Studies/Evaluation/ Development Projects

Sub-line of Action: Research

Field of Action: Bilingual Education

Study of Bilingual Education in Five Countries of Latin America

The fact-finding study of bilingual education in Bolivia, Ecuador, Guatemala, Mexico and Peru continued; as part thereof, the associated expert from the Adult Unit carried out a study mission to Ecuador and Guatemala (6-26 May), in the course of which he collected secondary data, had interviews with representatives of various institutions and made field visits to different programmes in Guatemala City and Quito.

The information obtained concerned the following programmes in Guatemala: PRONEBI, IGER, Teacher Training Programme for Bilingual Education, University Rafael Landivar, Programme of the Mariano Gálvez University, the Francisco Marroquín linguistic project; and in Ecuador: the Pichincha Riccharimui literacy programme, CEPP, CEDEP, EBI Project and the Pastaza Bilingual Schools Project.

Line of Action: Research/ Studies/Evaluation/ Development Projects

Sub-line of Action: Development Project

Field of Action: Education and Women

Literacy and Civics Education Project for Rural Women in Ecuador and Peru

This project was in operation from 1986 to 1988 in rural zones of Ecuador and Peru and proposed a programme for rural women, which combined literacy teaching with work to make the groups of women aware of their rights and responsibilities. Under OREALC auspices, both governmental and non-governmental organizations took part in the project: CEDIME (Ecuador) and CENDIPP, Perú Mujer, Literacy Direction of the Ministry of Education (Peru).

The third and last stage of the project is taking place between June 1989 and January 1990. In this respect, OREALC has established agreements with the above-mentioned institutions and with two consultants, in order: to contribute to the present literacy campaign in Ecuador by producing teaching materials on subjects within the scope of the project; to extend and develop training in the use of the booklet "Rights of the Indigenous Woman", provided the more active among indigenous women in Ecuador and, at the same time, evaluate the pertinence of the booklet; to write the final report of the project in Peru; to analyze the methods adopted by the Peruvian project; and to select, edit and publish educational pamphlets, didactic games and papers written by peasants in the course of the programme in Peru. OREALC hopes hereby to test the soundness of the project and publish the lessons learnt through the project and the materials that were used and thus contribute to other priority educational projects, such as the Literacy Campaign in Ecuador.

Line of Action:Information/ Documentation/ Publications

Field of Action: Literacy

Education Fair in Honduras

A contract was signed in July 1989 with the General Adult Education Direction of the Ministry of Education of Honduras, for the latter to organize an education fair in Choluteca on the occasion of International Literacy Day on 8 September 1989.

As similar fairs took place in Honduras in 1987 and 1988, it is hoped that this year's fair can build on the experience acquired and seek new modalities of propagation and contact with the community.

Line of Action: Horizontal Cooperation

Field of Action: Adult Education

Traineeship in Documentation

A traineeship was organized in Santiago, Chile, from 22 to 30 May 1989 to support documentation centres in the field of adult education and literacy. The trainee was a representative of the Colombian Ministry of Education from the del Valle Department Direction; this member institution of REDALF Colombia has developed a zone network, which has managed to mobilize a number of organizations and is publishing a local bulletin.

The trainee was introduced to the networks of the Major Project, in particular REDALF and SIRI, but also REDUC (the network of the Chilean NGO CIDE-Centre for Educational Research and Development) in order to

become familiar with their processing experience; this should facilitate the creation of an information system in her own organization. The traineeship was organized by OREALC, with help from CIDE.

Line of Action:Information/ Documentation/ Publications
Field of Action: Adult Education

OREALC. Adult Education. REDALF Action. Santiago, Chile. OREALC 1989.

Now, as before, literacy and adult education are a challenge and serve as an indicator of the success of the democratization process in cultural, political and economic practices in Latin American and Caribbean societies.

The most important national efforts to improve and renew adult education systems over the last decade have been impelled by the Major Project in the Field of Education. To attain the objectives of this Project, a regional system of networks was created to facilitate cooperation and systematic action. REDALF was created as the regional mechanism to support programmes and action in the field of literacy and adult education.

The book describes REDALF action from its not so distant beginnings and explains the methods adopted and the activities planned up to 1986.

It describes the Major Project and analyzes trends in literacy and adult education, as well as the principal achievements and difficulties during this last decade, its initial objectives and actions in the first stage (1986).

The activities undertaken in 1987-1988 to implement the mandates of the II meeting of the Regional Intergovernmental Committee (Bogota, 1987) are also described.

The setting up of national networks as an essential factor in REDALF strategy is also analysed, and special mention is made of the experience of REDALF Colombia, which has achieved a significant degree of organization and action.

The projections of this regional network are the outcome of analysis and agreement at the III Regional Technical Meeting of REDALF, held in Cali from 27 to 31 March this year. In the Action Plan for 1989, emphasis is placed on the all-important evaluation of literacy, programmes, with projections by country for the coming decade, the results of which will be presented at the Regional Meeting on literacy policies and strategies for the decade 1990-2000, to be held in Managua, Nicaragua, towards the end of the year; that is why regional research into basic adult education and the programme of traineeships proposed by various national institutions, are so important.

Special attention was paid to International Literacy Year in the Cali meeting. The Action Plan for 1990 takes up the main suggestions and recommendations resulting from the Regional Technical Consultation to prepare International Literacy Year (ILY), which REDALF organized in Havana in 1988. A considerable effort will be required from institutions, and additional resources needed, to implement planned training activities, to develop regional research, to set in move the special motivation and dissemination mechanisms, as well as to organize and carry out important tasks in favour of countries with more acute illiteracy problems through horizontal cooperation.

The preliminary conclusions summarized in this document stress the following: the coherence of REDALF educational practice with the mandates of the Major Project in the Field of Education, the successful steps taken towards fulfilling the Network's objectives, as well as its impact on regional educational processes, particularly in the fields of post-literacy action and work, basic adult education, intercultural bilingual education and functional literacy.

Line of Action: Information/ Documentation/ Publications

Field of Action: Bilingual Education

Unesco/I.I.I. "The Native Woman and Education in Latin America" (Anna L. D'Emilio, Compiler) Santiago, Chile: OREALC, 1989.

In America, cultural diversity has been denied for centuries, and attempts have been made to immerse it in a "melting pot'; nevertheless, a number of native languages and cultures have survived somehow. In this context, alternative proposals have been made to restore esteem for the many forms of cultural expression of the original inhabitants of the continent. The above publication, which is a joint effort by Unesco-OREALC and III. (Interamerican Indigenous Institute) with a voluntary contribution from the Spanish Government, is yet another attempt to eliminate the inequality which affects native populations.

The educational problems of the native woman are examined in this book, as well as her role in society and in preserving the cultural identity of her people. The study stems from the general interest in the socio-economic and educational condi-

tion of indigenous communities, rooted in the idea of cultural retrieval. The book assembles the complete texts of papers presented to the Regional Technical Seminar, held in Antigua, Guatemala, in June 1987, other significant contributions on the theme and a synthesis of the conclusions and recommendations of the meeting.

The text is of particular interest to the region, both because of its wide coverage of themes and its focus, and because it originated in a technical meeting attended by and important number of representatives of indigenous women.

The objective of the book is the same as that of the seminar: to encourage exchange of ideas and experiences, in order to improve educational provision for indigenous women in the region. Educational provision, which, hopefully will give rise to original responses in the native societies themselves to the now secular contradiction between tradition and modernity.

REGIONAL NETWORK FOR TRAINING, INNOVATION AND RESEARCH IN THE FIELDS OF PLANNING AND ADMINISTRATION OF BASIC EDUCATION AND LITERACY PROGRAMMES –REPLAD–

Training and further training

Regional Seminar-Workshop for the Training of Trainers in Educational Planning and Administration

The second stage of the Regional Programme "Training of Trainers" was held at OREALC headquarters (Santiago, Chile), with the participation of representatives of Ministries of Education and institutions associated with the REPLAD Network from 16 countries of the region, and from Spain.

This Seminar-Workshop, held from 2 May to 6 June 1989, is part of the activities undertaken by the REPLAD Network to strengthen specific capacities in technical personnel responsible for the planning and administration of education.

More specifically, the objectives of this second stage –which was an intensive course which required attendance– aimed at developing the participants' capacity:

- to visualize all the aspects of the crisis which affects Latin American society and therefore education, in which its endogenous limits are accumulated;
- to detect, define and evaluate alternative options in the different fields, through appropriate strategies for the planning and organization of educational development;
- to identify the agents and institutions which act on educational development, and to encourage negotiation and cooperation mechanisms among them;
- to make a critical evaluation of the focus, methods and practices of education planning and administration, in order to retain positive aspects and to create concepts and methods which fit better in with situations, as they occur;
- to work out and implement innovative strategies and national projects for the training of personnel in charge of educational planning and administration.

The work of the Seminar-Workshop was organized in 29 sessions centered around four theme modules, with lectures by high level specialists from Ministries of Education and regional and international institutions linked with education and social and economic development.

The participants represented Planning Offices, offices dealing with training and further training of education personnel, and research and development institutions in Argentina, Aruba, Bolivia, Brazil, Colombia, Costa Rica, Cuba, Chile, Dominican Republic, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Peru, Spain and Venezuela. The themes examined in the different modules were:

The Prospects of Education and Social Challenges in Latin America. Main Problems Encountered in a Situation of Socio-Economic Crisis. Their reporters were: Juan Carlos Tedesco, Director of OREALC, Fernando Fajnzylber, Enzo Falleto and John Durston, ECLAC, José Joaquín Brunner, FLACSO Chile, and Lucio Geller, PREALC.

A Review of Education Systems in Latin America: Problems and Prospects exposed by Juan Carlos Tedesco, Juan Casassus and José Rivero, OREALC, Ce-

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cilia Braslavsky, FLACSO-Argentina, Juan Enrique García Huidobro, CIDE and Abraham Magendzo, PIIE.

Challenges and Prospects of Educational Planning and Administration, their reporters were: Claude Tibi, IIEP, Carlos de Mattos, ILPES, Rolando Sánchez Araya, CELADE, Juan Prawda W., Education Secretariat Mexico, and Lorenzo Guadamuz, Ministry of Education, Costa Rica.

The Contribution of Information and Research to Decision-making in Education, presented by Rolando Franco, CIENES, Ernesto Schiefelbein, OREALC.

Furthermore, other OREALC specialists took part in the debate and reported on specific experiences in their fields: José de Simone in vocational training, José Rivero in adult education, Rafael Ruiz de Lira in information systems, Arturo Matute and Rodrigo Vera of the PIIE (Interdisciplinary Educational Research Programme).

During the final sessions, an evaluation was made by the participants of the work undertaken by the Seminar, seen against the objectives, methodological contents and focus, as well as the administration, of the programmed activities.

The third stage of the project –which does not require attendance– consists in the integration of the experiences analyzed into the elaboration of a national project for the training of personnel in the field of educational planning and administration.

Distance Training Course for Education Planners, Administrators and Supervisors at the Local Level

Mexico

Under the responsibility of the Programme of Educational Research and Development of the University of Monterrey, this course was terminated satisfactorily; it lasted from August 1987 to December 1988 and was addressed to personnel from state and federal educational institutions in the States of Coahuila, Nuevo León, San Luis Potosí and Tamaulipas.

The report submitted to the REPLAD Coordinating Secretariat indicates that, out of 45 trainees enrolled at the beginning of the course, 31 terminated satisfactorily, representing 69%. 14 Trainees abandoned the course because they were transferred to other posts. Participated in the course personnel from the National Institute for Adult Education (INEA), the National Council for the Promotion of Education (CONAFE), the Coordinated Services of Public Education (SCEP) and the Secretariat for Education and Culture (SE and C) of the above-mentioned States.

The materials used –both printed and recorded– were evaluated by the participants as regards presentation, organization of contents and technical quality, and OREALC was informed of the formal observations made.

In the analysis of the structure, contents and presentation of the printed materials, the following positive aspects were underlined: the novelty and quality of the modular structure, which contributed to encourage searching for additional information, to stimulate reflexion and critical questioning of existing practices, to increase institutional commitment through a better understanding of the education problems and to seek new working methods. The following aspects were considered unfavourable: printing errors and unattractive illustrations, learning activities higher than the trainees' possibilities, a too theoretical and conceptual level for the target population, a too schematic way of treating the topics and too limited possibilities for self-evaluation. The recorded materials were found to be little dynamic and not study-supportive, since they only summarized the texts. The Programme Coordination made two recommendations in its analysis: a) to elaborate complementary materials to encourage and motivate the target population; b) to prepare additional materials on the themes in the modules in order to answer the specific needs of the participating groups.

Training of Personnel in Charge of Planning and Administration in Section Units

Colombia

The REPLAD team of the University del Valle submitted to the Network Coordinating Secretariat a proposal to organize this course, in accordance with the contract signed with OREALC, with support from the Planning Direction of the Ministry of Education. The course is planned to attend to 96 participants from the Regional Councils for Economic and Social Planning (CORPES) for a period of eight months; Activities will require personal attendance, in some cases, and distance training, in others; the materials used for training will be the Multimedia Materials Package prepared by Unesco/SECAB/SENA, with the collaboration of the Spanish Government, as well as other self-education materials elaborated by Unesco.

The purpose of the course is to develop technical capacity in officials in charge of education administration and planning at the local level, with a view to: a) stimulate, develop and consolidate the education process by improving the manage-

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ment capacity of the people in charge; b) to encourage the setting up of mechanisms and links between regional and local education activities; c) to contribute, with the Ministry of Education, to establish and operate a functional information system in order to identify needs and education projects at regional and local levels; d) to stimulate research and evaluation of basic education and literacy programmes; e) to validate the training methods proposed.

Training will be provided for staff from four CORPES: in Cartagena, for the Caribbean (24 participants), in Cali, for the Southwest (24 participants), in Bogotá, for the Centre East (18 participants) and in Villavicencio for Orinoquía-Amazonía (30 participants). The training schedule is planned to cover 160 hours of personal attendance and 350 hours of distance study; tutoring will be carried out by staff from the University del Valle. Participants will be selected by the Sectoral Office for Educational Planning (OSPE) of the Ministry of National Education, in coordination with educational planning offices in each territory.

Horizontal Cooperation between REPLAD Institutions

Exchange Visits

University del Valle (Colombia)/State University of Campinas (Brazil)

In the framework of REPLAD's horizontal cooperation activities, Professor Rafael Guillermo Ricardo Bray from the Administration and Planning Department (DAPE) of the Faculty of Education, University del Valle, carried out a professional exchange visit to the Administration and Supervision Department (DASE) of the Faculty of Education, State University of Campinas, Brazil.

During his visit, Professor Bray was informed of teaching and research activities carried out in the Campinas University, participated in meetings held to examine the municipalization process in Brazil and in Colombia and its effects on the development of local education programmes and projects, attended a seminar on the relationship: official versus popular languages, given by Paulo Freire, took part in working sessions with DASE professors, met public school directors and called on different authorities, both in the University, the State education system and the Municipal Education Secretariat.

National networks for exchange and cooperation

Colombia

- The REPLAD team of the Faculty of Education of the University del Valle, which is responsible for the Colombian network, has started the publishing of a semi-annual bulletin, in cooperation with all affiliated institutions, to provide information on the activities, which each is carrying out in its field of competence.
  The first issue of this bulletin reports on activities of REPLADCO member institutions in different parts of the country.

Atlántico

- Progress is made in a fact-finding research project, undertaken by the University del Atlántico, to determine the need for training of supervisors and administrators of teaching establishments in the capital and neighbouring municipalities.
- The Basic Section Team has started examination of the materials package for the training of local level administrators and planners.

Caquetá

The Basic Section Team for training, composed of the University of Amazonia, the Pilot Experimental Centre of Caquetá, the Departmental Education Secretariat and the National Learning Service, is planning to organize two courses for 20 supervisors and 100 directors of teaching establishments, using the package of training materials; the courses would require partial attendance.

Casanare

The Basic Section Team is envisaging the participation of the Pilot Experimental Centre and the State Secretariat of Education; the possibility is being studied of organizing three training courses for local supervisors, directors of teaching establishments and for teachers.

Cauca

The Basic Section Team has been set up; it comprises the Departmental Education Secretariat and representatives of the University of Cauca. Present activities are mainly centered around the analysis of training materials.

César

Four institutions make up the Basic Section Team: the National Learning Service, the Departmental Education Secretariat, the Pilot Experimental Centre and the "R. Dávila de Cuello" Training Institute. Among planned activities are: multicopying of four modules of the Materials Package, preparation of a seminar-workshop to train

local education officials, and publication of materials to promote the activities of the Network in the Department.

Córdoba

The Basic Section Team is coordinated by the Faculty of Education of the University of Córdoba; it also comprises the regional National Learning Services, the Pilot Experimental Centre and the Departmental Education Secretariat. In this initial period of consolidation, activities have been limited to studying and analyzing training materials.

Chocó

The Technological University of Chocó and the Pilot Experimental Centre form part of the Basic Section Team and are presently studying training materials and organizing seven courses, each of 30 participants, for chiefs of Districts, nucleus directors, directors and coordinators of teaching establishments, supervisors and chiefs of units or programmes in the Education Secretariat.

Nariño

The Basic Section Team is made up of the Faculty of Education of the University of Nariño and the Pilot Experimental Centre; the training materials have been examined and a programme mapped out to train 50 local officials in the Pasto District; a contract has been signed to finance the costs of reproduction of materials and of teaching for this programme, which is to function with partial attendance methods.

Meta

The Basic Section Team was set up and is composed of representatives of the University of Los LLanos Orientales, of the Pilot Experimental Centre and the Departmental Education Secretariat. Among activities under study is the holding of a seminar-workshop for 23 local officials in Ariari, Castilla and Villavicencio, for which the training materials package will be used.

Putumayo

The Pilot Experimental Centre and the Education Secretariat have worked together to set up the Basic Section Team; among its immediate tasks are the analysis and study of training materials and the preparation of a regional training programme for education agents.

Santander

The Educational Planning Office of the Departmental Education Secretariat is presently engaged in constituting the Basic Section Team.

- The REPLAD team of the University del Valle is presently organizing a "Training Programme to Strengthen Educational Administration and Planning at the Local Level in the Framework of REPLAD, for the Department of the Valle del Cauca".

Planned to cover 30 officials of the Departmental Education Secretariat, the Programme is run by an inter-institution team, composed of the Technical Unit, the Valle Pilot Experimental Centre and the University, the latter being in charge of teaching.

A training course is being prepared for personnel from all the regional planning offices of the country; the Sectoral Office for Educational Planning of the Ministry of National Education, is actively interested in this activity.

Mexico

Operational Action Network –ROA–.

The Coordinator of the Educational Research and Development Programme –PIED–, University of Monterrey, which is associated with REPLAD, has informed the Coordinating Secretariat in OREALC of the setting up of an Operational Action Network, the geographical coverage of which is the Northeast of the country.

This national network is not a formal structure, but draws cooperation from different institutions for joint undertakings, with coordination and guidance from the Educational Research and Development Programme.

Work covers the States of Coahuila, Durango, Nuevo León, San Luis Potosí and Tamaulipas, and so far, the National Institute for Adult Education –INEA– the National Council for the Promotion of Education –CONAFE– and sub-offices of the State Education Secretariats have participated.

Perú

The Director General of the National Institute for the Research and Development of Education (INIDE) of Peru –which coordinates the National Network– reported on the following organisms and institutions, which have joined REPLAD-Perú:

- Departmental Education Direction for Metropolitan Lima
- Departmental Education Direction for Cajamarca
- Departmental Education Direction for Cusco
- Departmental Education Direction for Puno.

Preliminary coordination

was established to incorporate these organisms into the National Network, and activities were organized in each region to stir interest and motivation therefor.

Information is also provided on four workshops carried out in Lima and on three documents published jointly by INIDE and Unesco in the framework of REPLAD:

- "Achievements of the Regional Training and Innovation Network in the Field of Planning and Administration of Basic Education and Literacy Programmes".
- "Adult Education and Literacy: Methodology and Experiences" (Anthology).
- "Some Thoughts on Primary Education of Children".

The report mentions INIDE participation in the research and development project, which the University of Monterrey (Mexico) coordinates in the region, to prepare and validate materials for attendance courses and distance training in educational research.

Regional technical meeting of the REPLAD Network

The Coordinating Secretariat of the REPLAD Network, which is the responsibility of the OREALC specialist in planning and administration, has invited the member units to participate in the Fourth Technical Meeting to be held in Quito, Ecuador, from 2 to 6 October 1989.

The meeting will consider main fields:

- Analysis of the theory and practice of educational planning and management in the countries of the region, seen in the perspective of the Major Project of Education.
- The process of decentralization/centralization and deconcentration/concentration of education systems, as part of a restructuring of the State apparatus.
- Gathering and processing of information on the quality of education, how to measure it at class level, with the school establishment being considered a unit of measure for the analysis.
- The use of informatics in educational management to acquire equipment, to make inventories and evaluate applied procedures and programmes, as well as the feasibility of establishing a regional data bank.
- Development and functioning of the REPLAD Network, both regionally and nationally, in order to outline trends in its short-term action (1990-1991) and its medium-term action (1990-1995).

With this objective in view, participating institutions have been requested to prepare and present documents on their experience in these fields, in order to establish the relationship between theoretical development and concrete application thereof in the different geographical regions.

Research

Mexico: Supply and Demand in Training and further Training in Educational Planning in the States of Coahuila, San Luis Potosí, Nuevo León, Tamaulipas and Durango

This research work undertaken by the Educational Research and Development Programme of the University of Monterrey was motivated by Unesco/OREALC's initiatives to prepare specialists in the field of educational planning and administration at the regional and national level. It therefore contributes to determine actual availability of training and further training of human resources in this field; but it also constitutes an inventory of demand –interests and needs– in the States of Northeastern Mexico.

Undertaken with the support of the International Institute for Educational Planning (IIEP), this study goes into today's situation in the Secretariats of Public Education, in the National Institute for Adult Education, in the National Councils for the Promotion of Education and in the State universities of the above-mentioned states. Information was obtained through two questionnaires prepared to define existing demand, both among institutions and individuals.

The main objective of the document has been reached, i.e. gathering valid and reliable information on training needs in educational planning and administration, both qualitative and quantitative.

Argentina. "Schools and Teachers. Teacher Working Conditions in Argentina"

This study is part of a comparative research undertaking carried out in Argentina, Bolivia and Peru and coordinated by Justa Ezpeleta; the reports on Bolivia and Peru were presented in this same section of Bulletin No. 18.

The study on Argentina investigates into the factors which influence the quality of teaching work in schools covering a socially and economically marginal population, both in the country and in the city; it was carried out in the province of Córdoba in 1987.

The study outlines the questions, the subjects of in-

vestigation and the theoretical focus of the study. The legal and institutional rules, which regulate schools and teachers, and depict the population under study and situate the context and sampling elements are described. The teacher in his school and work environment and the possibility for professional development of teachers, an their everyday life as teachers are described. The particularities of teaching work in class are examined later on in the study; the same as the management aspects and the study concludes with a provisional balance stating that the school as an institution does not rank the teaching profession; one perceives a labour structure, in which preference is given to individual, vertical and one-way relationships, and the perception of the teaching corps tends to fade away; further training of teachers is not considered to be the responsibility of the school institution; tha material conditions of the schools make for more supervisory work and reduce teaching to a bureaucratic control; initiatives and innovations are considered to upset the normal rhythm of schools.

Publications

"The REPLAD Regional Network. Five Years of Action in Support of the Major Project in the Field of Education. Achievements and Prospects"

This publication provides information on action undertaken by the Network member institutions, from its official creation in Panama in 1985 until May 1989. It examines the fundamental ideas behind the constitution of the Network as a support mechanism for the Major Project and explicits the orientation given to its activities. Apart from the disseminating role the report plays, it adds elements which make it possible to evaluate the work and achievements of the Network and to project its action and development in the future.

REGIONAL NETWORK FOR THE TRAINING, FURTHER TRAINING AND UPDATING OF TEACHERS - PICPEMCE

SEMINAR-WORKSHOP ON EVALUATION OF MULTIGRADE SCHOOLS

The above seminar-workshop took place in La Paz, Bolivia, from 26 to 28 July, under the auspices of the Ministry of Education and Unicef. The meeting was attended by officials in charge of rural education in Bolivia, by researchers from the Bolivian Centre for Research and Educational Action (CEBIAE) - who prepared the basic document for the meeting, and other special participants. The purpose of the seminar-workshop was to prompt assessment and comments on the experience of the Multigrade Schools, which receive Unicef support in Colombia. The purpose was also to elaborate action strategies to face a new stage in the implementation of this reform.

Generally speaking, the participants were in agreement with the evaluation made by CEBIAE, and their significant comments contributed to explore the subject more in depth. Among the strategies proposed was Workshops for Educators in order to create a permanent in-service training scheme alongside with the implementation of the multigrade schools.

Unesco-OREALC was represented by the regional specialized consultant, Rodrigo Vera G., who was member of the Commission on teacher training for the Multigrade Schools.

The seminar produced a document with reflexions and suggestions to be included in the final evaluation report of the Multigrade Schools.

FIRST MEETING OF POLYVALENT TEACHERS TO REFLECT ON EDUCATORS' WORKSHOPS

The above meeting took place in Villavicencio, Colombia, from 10 to 12 August 1989. Under Unesco auspices, the National Pedagogical University (UPN), through its Department of Lifelong Education and its Research Centre (CIUP), brought together four groups of primary school teachers, who practice polyvalent education in their respective working places. 60 teachers –men and women– from Choachí, Cumaral Montelibano and Bolívar-Santander formed reflexion groups on the viability

of polyvalent education and polyvalent educators within the framework of the pedagogical movement, on Educators' Workshops as an alternative training method founding work on problems met during the teaching practice, on the obstacles and possibilities of the change of role of the educator and on rural education, on teaching research and research in polyvalent education as a social experiment.

Experiences were exchanged during the seminar, centered, mainly, in the development of socio-pedagogical projects, in which both educators and members of the community participate. The meeting schedule included expositions, group work and plenaries to summarize discussions. The coordinators of the meeting were Professor César Vera and Professor Francisco Parra from the UPN, who received support from the OREALC regional specialized consultant, Rodrigo Vera G., who also contributed with a technical exposition on teaching research in training processes and pedagogical experimentation.

The meeting produced a document, which includes a declaration from the participants reaffirming their will to carry on and extend the above line of work to other teachers.

The training of polyvalent educators and the use of Educators' Workshops originated in a joint initiative of the REPLAD and PICPEMCE networks. The first Regional Technical Seminar was held in Paipa, Colombia, in November 1986. OREALC has three publications at its disposal on this working method.

PRO-INTEGRATION OF CHILDREN WITH SPECIAL NEEDS INTO STANDARD EDUCATION

A "National Seminar on the Integration of Individuals with Special Needs" was held in Caracas, Venezuela, from 11 to 14 July. It was organized by the Special Education Direction of the Ministry of National Education and the Foundation for the Development of Special Education, with support from OREALC. Its general purpose was to examine the present state of integration policies in Venezuela and in some neighbouring countries (representatives of Colombia and Ecuador attended the Seminar) and to propose action leading to an integration pattern adapted to the reality of the country. Some 200 people attended the conferences and panels, which were public: professionals, students, handicapped persons and parents. Thereafter, three workshops were organized by and for professional staff in Special Education from different parts of the country to examine the consequences for integration of auditive, visual and mental deficiency. The Seminar concluded with a round table on the 'Linking of Basic, Preschool and Special Education with a view to Integrating the Child with Special Needs into School". The OREALC associated expert in special education, Danielle Van Steenlandt, made an exposition to the round table.

– In the period from May to August, a group entitled 'Pro-Integration Chile' was set up, composed of professionals working in special education and representatives of associations of parents of handicapped children. One of the objectives of this group is to encourage the integration of children with special needs into ordinary education. During this period, the group established their internal organization, laid down the groundwork for a manifesto and worked out a first action plan.

The group was established through an OREALC initiative, in order to promote this kind of effort as part of a regional strategy pro-integration of handicapped children into ordinary education.

– Course: Integration of Handicapped Children into Preschool and Basic Education in Chile. Organized by the University Diego Portales of Santiago, Chile, this course took place from 8 July to 26 August 1989 under OREALC Auspices, and its regional specialized consultant, made an exposition on the theme "Educational Policies of Integration in Latin America".

'Critical Approach' Workshops

A method to develop a critical sense as a central element in the education process has given rise to experiences in several countries, in which social communication means and museums are used as "prism objects". Initial work consisted in workshops to prepare a methodology for teaching staff of teacher training institutions, or specialists in institutions providing in-service teacher training.

Two workshops on the subject 'A Critical Approach to Newspapers' were held in June, one in Costa Rica, 5-6 June, with the National Didactic Centre (CENADI), and another in Caracas, 12-13 June, with the Pedagogical University El Libertador (UPEL), both under the auspices of OEI, and with the participation of the Argentinian programme "Newspapers in Schools". Both in San José and in Caracas, organizers met representatives of the main newspapers to explain the project and inform them of the Argentinian experience and to request their

possible cooperation when work itself starts in schools.

With the cooperation of UPEL, the National Museum of Contemporary Art and OREALC, PICPEMCE held a workshop in Caracas, 14-16 June, on 'A Critical Approach to Museums'. Participating teachers concentrated on a creative analysis of the 14 original works by the Spanish painter, Picasso, in the Museum, using them as "prism objects"; the result thereof was an interdisciplinary curriculum proposal for secondary school students. The different faculties in Venezuela of the Pedagogical University El Libertador are to carry out similar experiences of approaching museums critically, during next university year.

Setting Up of the PICPEMCE Focal Institution in Mexico

The National Pedagogical University (UPN) of Mexico was made the focal point for PICPEMCE in the country. The new rector, Dr. José Angel Pescador Osuna, confirmed the University's interest in collaborating with OREALC by accepting to become the focal point for the PICPEMCE Network in Mexico.

He moreover announced that the UPN is to organize a regional meeting in October on 'Reading-writing as a Factor in School Failure'.

Horizontal Cooperation

At a meeting held at the Experimental Pedagogical University El Libertador of Venezuela, (UPEL); (Caracas, July 1989) and with the participation of UPEL, Bolivia, and OREALC a Study Plan for a Master's Degree was prepared and will shortly be presented to the new education authorities of Bolivia. This agreement was adopted within the framework of the cooperation agreement signed through the PICPEMCE network by the Costa Rica and Venezuela Universities

REGIONAL INFORMATION SYSTEM –SIRI–

Field:
Data Base on Qualitative and Statistical Information on Education

Line of Action:
Educational Data Base by Country

OREALC has developed a regional statistical data base for the 1980-1987 period with information provided by each of the statistical units in the Ministries of Education in statistical forms prepared by SIRI. The data base includes information on preschool, primary and basic secondary education, literacy and adult education. There is information on enrolments teachers and school establishments. Data can be retrieved as indicators and by sector, administrative units (public and private), and by geographical zones (rural and urban). There are indicators on the quality and efficiency of the system, concentration and distribution of enrolment by grades and on repetition. Some limited statistical data are also available on educational financing, expenditures by level of education, percentages of GDP and the State budget.

The data base operates in an IBM-PS computer, with a Lotus 1-2-3 programme, by country and by level of education, or programme areas of the Major Project in the Field of Education. The statistical data base will be completed by additional information and edited after country revisions. Requests from national statistical units from Member States and Associate Members, will be eventualy attended. SIRI hopes to provide services to Ministries of education, national research and training institutions, international organizations and, in general, for officials, technicians and teachers.

Field:
Analysis of Statistical and Documentary Information

Line of Action:
Processing Information and preparation of Reports

The Regional Information System (SIRI) prepared preliminary country reports on educational progress and obstacles towards the objectives set up by the Major Project for the biennium 1986-1987. The preliminary version of each "National Education Synthesis, 1986-1987" is based on information supplied by official sources in the countries, mainly Ministries of Education and their General Directions, Planning or Statistical Offices, which are the national focal points for the Regional Information System (SIRI). Each of the 30 reports

are organized in four parts: (i) educational overview in each country during the biennium, including special achievements and trends; (ii) institutional framework of education in each country, including a description of the system, education policies and plans, and educational cooperation networks and systems; (iii) structural framework, strategies and programmes undertaken to reach the three objectives of the Major Project; and, finally, (iv) basic statistical data characterizing the educational situation and trends in each country, processed by the Regional Information System (SIRI).

Line of Action:
Publications

The Regional Office for Education in Latin America and the Caribbean has just published "The State of Education in Latin America and the Caribbean, 1980-1985" (English version) in 500 copies. The report describes main educational progress and achievements within the framework of the Major Project in the Field of Education during the 1980-1985 period. The publication was officially presented to the third meeting of the Intergovernmental Committee of the Major Project held in Guatemala City from June 26 to 30 1989. The report is now being distributed mainly among English-speaking Member States and Associate Members, to the Ministries of Education, institutions which are part of the three cooperative networks of the Major Project and National Comissions for Unesco.

Other educational, university, documentation or research institutions and centres, whether national, regional or international, can obtain the publication through this Regional Office.

Field:
Exchange and Use of Information and Documentation
Line of Action:
Information Systems for Administration

Costa Rica is designing an information system to collect and process statistical data. The system is being prepared by the Ministry of Education within the framework of the Project UNDP/Unesco/COS/88/002. The system should gather statistical data and information mainly produced by the education system itself. The proposal will be discussed in several seminars before being validated and implemented by the Ministry of Education. The proposal of the statistical information system (two volumes) includes an implementation timetable related documentation on the subject matter, a series of annexes and a diskette with the software to be used in the system.

Line of Action:
Documentation: Directory of Cultural Institutions in Latin America and the Caribbean

A "Directory of Cultural Institutions in Latin America and the Caribbean" has been prepared by Unesco's Regional Office for Culture in Latin America and the Caribbean, Havana, Cuba. The Directory is organized by country and by institution, in alphabetical order, with corresponding addresses. Its main objective is to support mutual knowledge and to strengthen institutions and individuals, who work in the field of culture in Latin America and the Caribbean. It does not include libraries or museums, because they are included in well known repertoires already available in the region. This preliminary version of the repertoire is presented in volume XXIII Nos. 1-2, January-June 1988.

Line of Action:
Software for the Analysis and Projection of Educational Statistics (EDSTATS)

The Unesco Office of Statistics prepared a PC software to process, analyze, and project statistical data on education. EDSTATS is a versatile programme for processing statistical data on primary and secondary education and computing indicators on internal efficiency of education systems (enrolment, promotion, repetition and dropout rates, evolution of cohorts flowcharts), as well as projecting and simulating school enrolments. The EDSTATS software should facilitate analysis, diagnosis and quantitative evaluation of educational systems. Technical personnel in charge of data processing in each country should have short training courses to use it. The programme is written in Turbo PASCAL and functions with OIS-DOS (PC-DOS) version 2,0 or more, on IBM-PC, XT or AT, or any other compatible microcomputer with graphic CGA and a printer to copy the results. The computer should have a RAM memory of at least 256 kb. EDSTATS is presented in two floppy diskettes (D1: EDSTATS and D2: Country Data File), which can be copied on other diskettes of the same type, or on a hard disc unit (HDU); can operate with a more limited memory and only one diskette, but would be less effective and slower. A small instruction manual is available with the diskettes. It can be obtained upon request from: Office of Statistics, Unesco, 7 Place de Fontenoy, 75700 Paris, France.

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Field:
Information Systems for Administration

Line of Action:
Seminars/Congresses

The development of documentary project evaluation, and statistical data bases for planning purposes was recently studied in a seminary held in the ECLAC building in Santiago, Chile. Special attention was devoted to the demonstration and analysis of the Information System for Planning (INFOPLAN) of the United Nations –ECLAC/ CLADES/ILPES. Other experiences were also examined in the field of project banks, information systems and macro-economic models. The seminar also discussed the eventual establishment of a cooperation system in informatics and telecommunications for planning and coordination of public policies. Data sources in informatics and telecommunications in Latin America were examined in detail, as well as the present state of data bases and other regional information sources, including their possible interconnection through telecommunications, at the regional and international level. The meeting took place July 11 to 14 , 1989, and was organized jointly by ECLAC/ CLADES and ILPES/UNDP, Project RLA/86/029, in cooperation from IDRC, SOFTEL 89 and the University of Chile.

OTHER OREALC ACTIVITIES

Participation in Meetings of Subjects Related to Women

During the period May-August 1989, an OREALC consultant attended two meetings on women organized by ECLAC. One was a Regional Seminar for the Analysis of Experiences drawn from Productive Projects for Women and Implications of Policies (ECLAC, Santiago, Chile, 5-8 June 1989). The meeting was part of a regional project carried out by the Social Development Division of ECLAC, under the auspices of the United Nations Development Fund for Women (UNIFEM). The meeting permitted discussion of the potentials and limits of productive projects carried out by women in popular sectors, both in rural and urban zones, in view of an equitable integration of women into the economic and social development process. The experience of six projects was brought to the knowledge of the meeting: in Bolivia, Brazil, Colombia, Chile, Ecuador and Mexico. Moreover, several lines of action were suggested to enable these projects to contribute effectively to development.

Furthermore, OREALC was present at a Round Table on Women and Education, organized by the Centre for Studies on Women (CEM), (under the auspices of Unicef, ECLAC, UNDP and PREALC), which took place at ECLAC headquarters, Santiago, Chile, on 28 July 1989. Three studies were brought to the knowledge of the round table: one on sex discrimination in education, in particular in the values transmitted by teaching materials as regards the behaviour society expects from women and men (PIIE), another on the teacher's role in transmitting sex roles (CIDE) and the third on the effects of mixed secondary education (PIIE).

Training for Science Teaching

A sub-regional seminar-workshop took place in Lima, Peru, from 17 to 21 October 1988 on "Training for Science Teaching in Primary School and Integrated Science Teaching", with the participation of 17 specialists (8 women and 9 men) from 8 countries in the region (Argentina, Brazil, Colombia, Chile, Ecuador, Peru, Uruguay and Venezuela).

Among the objectives of the meeting was the need to "suggest ways to improve science teaching in primary - basic education", since efforts made so far have not yet produced the expected results, and no significant improvement has been noted in the teaching-learning process, as can be seen by the fact that the following phenomena persist in primary-basic education:

- excessive curriculum contents
- a predominance of verbal transmission of knowledge (verbalism)
- the rigid curricula
- the excessive role of the teacher in the teaching-learning process, which prevents active and creative pupil participation

- a too high pupil ratio per teacher
- the shortage of equipment in school laboratories and libraries
- the lack of moral and material incentives for the teacher
- a tendency to assign increasing responsibilities to the teacher, over and above his teaching work
- a disproportionate demanding of general knowledge in the teacher
- an insufficient community participation in the education process.

The opinions expressed during the Seminar, and the analysis made, clearly showed the importance of an integrated approach in this field to attain substantial changes in education systems, in general, and in science teaching, in particular. The seminar-workshop recommended, inter alia:

- that the governments of the region and/or institutions working for a renewal of science teaching, with the Unesco contribution and other specialized institutions, undertake research to identify the reasons, which have hindered the improvement of quality of science teaching and learning;
- to encourage the strengthening of existing institutions and/or working groups, and to promote creation of new centres and/or programmes (local, national, regional), which can contribute to the constant improvement of science teaching;
- to develop research projects in science teaching;
- to assure progressive participation in didactic research in class of groups of specialized teachers and teacher trainees, so as to reach all places where learning takes place;
- to create ways of exchanging information on local and national projects, programmes and activities;
- to develop regional projects to improve science teaching, possibly with support from international organizations, as well as from institutions and countries outside the region, which encourage, support and consolidate horizontal cooperation between nations and institutions in Latin America and the Caribbean; and to envisage the participation, in each country, of scientific societies, universities, professional schools and associations, scientific and technological research councils, etc.;
- to encourage non-formal educational activities to supplement and extend the school's action in science education for children and the community in general, through out-of-school activities, including an efficient utilization of social communication means.

The final report of the Seminar was published by Unesco/OREALC in July 1989, in its series 'Scientific and Tecnological Education', under the title "Training for Primary School Science Teaching and Integrated Science Teaching".

Provisional Publication: Terminology of Science and Technology Teaching

OREALC has just published a provisional glossary of 182 terms related to science and technology teaching. It contains a selected list of terms, in Spanish, with special emphasis on vocabulary used in primary education and the first part of secondary education.

Originally prepared in five languages, the glossary is part of a programme of the International Bureau of Education (IBE) to prepare the 39th session of the International Conference on Education on the theme: Generalization and Renovation of Primary Education to Allow an Appropriate Introduction to Science and Technique.

The OREALC/Unesco publication is available upon request, and comments are welcomed, both on the structure and contents of the terminology and on any other aspect. The possibility of publishing a version incorporating the comments and contributions of specialists in the region will be studied at a later time.

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OREALC PUBLICATIONS

- *The state of education in Latin America and the Caribbean, 1980-1985.* (SIRI). Santiago, Chile, May 1989.
- *Educación de adultos. La acción de la REDALF.* Santiago, Chile, May 1989.
- *Red Regional REPLAD. Cinco años de acciones de apoyo al Proyecto Principal. Logros y perspectivas.* Carlos Velasco. Santiago, Chile, May 1989.
- *Mujer indígena y educación en América Latina.* Anna Lucía D'Emilio (comp.) Unesco/I.I.I. Santiago, Chile, June 1989.
- *Escuelas y maestros. Condiciones del trabajo docente en Argentina.* Justa Ezpeleta. Santiago, Chile, June 1989.
- *Contacto.* Vol. XIV, No. 2. Boletín de educación ambiental de Unesco/ PNUMA. Santiago, Chile, June 1982.
- *Formación para la enseñanza de las ciencias en el nivel primario y la enseñanza integrada de las ciencias. Final report.* Subregional technical seminar, Lima, Perú, 17-21 october 1988. (Educación científica y tecnológica). Santiago, Chile, July 1989.
- *Información e innovación en educación.* No. 58. Boletín de la Oficina Internacional de Educación. Santiago, Chile, July 1989.
- *Desarrollo y perfeccionamiento de la enseñanza técnica y profesional. Final report.* Congreso internacional, Berlín, República Democrática Alemana, 22 June-1 July 1987. (Educación científica y tecnológica). Santiago, Chile, July 1989.
- *La contribución de las organizaciones no gubernamentales de desarrollo a la educación de adultos.* Juan Eduardo García-Huidobro. Santiago, Chile, August 1989.

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PUBLICATIONS

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